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ORIGINAL ARTICLES.

THE PALPABLE AND MOVABLE KIDNEYS.*

PAUL HILBERT.

During the year 1889, Israel called attention to palpation of healthy and diseased kindeys, placing stress upon those methods which give definite ideas about the size, the form and position of the kidneys under normal or abnormal conditions. Palpation of the kidneys is performed with both hands, the patient either standing, lying on the back, side or knee-elbow position. As a rule, the back is preferred by both patient and doctor. In palpating the right kidney, the physician stands to the right of the patient, the left hand under the loins immediately behind the last rib, while the right hand, placed opposite the anterior surface, exerts a gradually increasing pressure. In this manner the organ is frequently brought between the fingers of both hands. If this method cannot be carried out successfully, the examination on the side is the next preferable, or the patient may be examined standing, the body slightly bent forward.

Israel has concluded from his studies that every kidney can be partially or entirely palpated, and recognizes a motion induced on the normal kidney by the respiratory movements.

Kuttner, under the direction of Ewald, in the polyclinic of the Augusta Hospital, of Berlin, made a careful study of this subject and, in the course of eight months, had collected one hundred cases in which the kidneys could be palpated. In opposition to Israel, Kuttner maintains that every kidney which shows in palpation a tendency to motion during respiration should be regarded as pathological. In order to aid in deciding this question, the author has made a careful study of one hundred cases, giving a table which represents the grade of mobility, and if right, left or both were affected. He defines the three grades of mobility as follows: First grade of mobility: the lower portion of the kidney can be felt to about its middle. This he names ren palpabilis.

Second grade of mobility: the entire kidney can be felt between the fingers, known as ren mobilis.

Third grade of mobility: the entire kidney can be felt and pushed upwards at will, and he names this ren migrans.

This classification may lead the reader to think that the author regards the floating kidney, or ren migrans, as the highest grade of movable kidney, which, with truth, may be accepted, not, however, in the sense of Litten, who believes that the floating kidney is always of congenital origin; this view has never been demonstrated with certainty, either clinically or anatomically.

It is a well-known fact that movable kidneys occur more rarely in men than in women; this is also true of the first grade in the classification. In order to prove this, the author states that he served for

*A lecture read before the Society of Wissenschaftlitche Heil in Konigsburg i. Pr. Translated by M. B. Werner, M. D.

more than a year in the polyclinic on the male side and found but few cases of palpable kidney.

The hundred cases which I have collected have chiefly occurred among women. The frequency in which palpable kidneys can be found among women is shown by the fact that the first fifty cases were seen during the space of two months (May 28 to July 28, 1890); during this time 435 women were treated at the Polyclinic. The author was able to examine but half the number, say about 200 to 250, which has led him to conclude that palpable kidneys among women stands as 1 to 5.

The recognition of the first classification, rens palpabilis, can be aided by inducing the patient to take deep respirations. During inspiration the kidney usually descends and then can be easily felt by the examining hand, while during the act of expiration it ascends beyond reach. This mobility during respiration of a normal kidney the author has felt distinctively 95 times, twice in a lesser degree and three times it was impossible to feel it. He, for that reason, is inclined to believe with Israel that the respiratory movement of the kidney is physiological and not, as Kuttner insists it to be, pathological.

In the 100 cases examined, 65 were found of the right kidney, and 35 cases in which both kidneys were palpable. Forty of the 65 belong to the first grade, 25 to the second grade. The first grade of mobility was found in both kidneys 8 times, and 9 times of the second grade. In 17 cases the entire right kidney could be felt, while the lower portion of the left could be barely outlined. There was but one true case of floating kidney among the hundred. In this patient the left kidney was easily palpable.

In all these cases there were none found in which the left kidney was alone displaced.

The author has added a table in which he has particularly studied the age of the patient and the three classifications. This table states that in patients between the years of 20 to 40 the kidneys are most easily palpable; that they occur most among women who have never been pregnant. These statements coincide with those of Kuttner. In all cases an examination of the urine for albumen gave the following results: in 9 cases there was but small amount of albumen present; in 5 larger amount. This makes about 14 per cent. of the cases which contain albumen, and in comparing with other patients at the Polyclinic suffering from other diseases than that of the kidney, the author drew the following conclusions:

That abnormal motility of the kidney will produce pathological changes and secretion of urine which may lead to albuminuria.

One patient with ren mobilis of the right side and ren palpabilis of the left side presented, aside from the symptoms of acute nephritis and large quantities of albumen in in the urine, cylindrical casts and blood. The author was unable to find any changes in the form or consistence of the kidneys after the patient's recovery, such as have been observed by Litten and Israel. The author cannot add anything new to the causes which can lead to greater mobility of the kidney. Repeated pregnancies can only, in his estimation, produce as much influence as Landau assumes. Frequently carrying heavy loads or curvature of the spine has been regarded as a cause for dislocation of the kidneys.

The author found in 8 cases a descent of the lower anterior border of the right lung; the same existed of the liver in 4; inguinal hernia in 2; prolapsus of the vaginal walls once. In three women it was possible for him to locate by palpation both kidneys, liver and spleen, although there was no enlargement of any of the above-named organs. In two of these he found, in addition, a large prolapsed stomach reaching below the umbilicus. These cases may be classed, in all probability, with those described by Glenard under the name of Enteroptose.

Bartels and Muller-Warnick have described the connection between movable kidneys and diseases of the stomach; explaining their theory that by traction of the movable kidney, a compression of the duodenum, and through this dilatation of the stomach. Litten has explained it in the opposite, declaring that the dilatation of the stomach is the primary affection, while the dislocation of the kidney becomes secondary. These theories have, however, become questionable, and Litten has forsaken his theory entirely. Kittner, on the other hand, has called attention to the frequency of the presence of enlarged and displaced stomach in connection with

movable kidneys, claiming that in 89 cases in which he distended the stomach, he found an enlargement, perspectively a prolapsus, 79 times. This number seems to the author to be questionable, since, among his 100 cases, in which he frequently made use of distending the stomach, he found but 17 in which he could demonstrate enlargement or prolapsus. A question now comes—if and how much pathological importance can be attached to the palpation of kidneys?

In order to arrive at some definite conclusions, the author studied, in each case very thoroughly, the subjective as well as objective symptoms. After the diagnosis had been made, seven patients were found who had suffered absolutely from the mobility of the kidneys; 8 in which other diseases were present, anemia, tuberculosis. etc., who complained, however, subjectively, only of the movable kidney. This brings the percentage down to 15.

It has been known for some time that floating kidney, or even the second grade, ren mobilis, may give rise to serious changes, either by dragging on the ligaments or by flexure of the vessels or ureters. The author does not conclude that these conditions arise from pathological changes, but that the cause may be sought within the physiological boundaries which often cause abnormalities.

Therapeutically the author recommends certain bandages, or a corset extending to the pubes, which will in a measure produce artificial abdominal walls.

CLINICAL LECTURES.

QUINSY OR PERI-TONSILLAR ABSCESS AND ACUTE FOLLICULAR TONSILLITIS; THEIR DIFFERENTIAL DIAGNOSIS AND TREATMENT.

DR. GEORGE M. LEFFERTS.*

GENTLEMEN:—When a sore throat is due to a phlegmonous inflammation it attacks the tissues somewhere about the tonsil, but not the tonsil itself. Here at once we strike at the root of the popular idea that in quinsy sore throat the abscess occurs in the tonsil. It does not. In quinsy sore throat, the favorite seat of the phlegmon is in the tissues just in front, just above and to the outer side of the tonsil; or, in other words, just behind the anterior pillar of the fauces. The phlegmon, starting in this locality, invades the tissues about the tonsil—the anterior pillar of the fauces and the connective tissue behind and above the tonsil. Its next most frequent locality, but much more rare than the other, is behind the tonsil in the posterior pillar of the fauces. In the connective tissue of this part the phlegmon makes much slower progress and is never as large as in the first form. There will be œdematous infiltration and swelling, and the phlegmon will extend down the lateral pharyngeal wall, and it may eventually point as low down as the mouth of the œsophagus, the last place you would look for it to point. The third form is the still more rare. Here the phlegmon locates itself in the groove behind the tonsil, between the two pillars of the fauces. Here also the phlegmon has nothing whatever to do with the tonsil, but the abscess penetrates into the tonsil and opens into one of its crypts. Such an abscess will discharge itself unexpectedly, and you may never know where it was located or how it discharged itself. This phlegmonous inflammation will probably locate itself in eighty per cent. of the cases in the first locality mentioned.

These are the three localities in which you will find a peri-tonsillitis. In the case before us, the phlegmon certainly looks as if it were in the tonsil, for the tonsil is displaced and swollen, but in reality it is a case of peri-tonsillitis.

Now, ordinarily, the exciting cause is a cold, and the predisposing causes are just such large, ragged, irregular tonsils as you

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see in the drawings before you. The open mouths of their crypts seem to invite infection. In perhaps eight cases out of ten, the rheumatic diathetis will be the predisposing cause. I know very well that there are cases of idiopathic peri-tonsillitis, where the tonsil is scarcely swollen appreciably, and where there is no history of rheumatism or of exposure, and yet quinsy sore throat develops; but these cases are decidedly rare. Where peri-tonsillitis occurs and recurs, Spring and Fall, year after year, in the middle-age—not in children or old people—you will find that the subjects are almost always rheumatic.

In our patient here, the tonsils have a deep bluish-red color, which involves not only the tonsils but the parts about the tonsils; the soft palate is congested as far up as the hard palate; the anterior pillar of the fauces is crowded forward, œdematous and of the same bluish-red color. The other side shows only the bright red color of acute congestion. The tonsil is pressed forward to the median line and you see the open mouths of a number of the crypts. In this acute, hyperæmic swelling, and this bluish-red color, and the displacement of the tonsil you have the characteristics of quinsy sore throat or peri-tonsillitis.

The symptoms to which this condition gives rise are most marked and painful, and I know of no affection of the throat in proportion to the grade of the inflammatory action, which can give so much pain and discomfort as a quinsy sore throat. In protracted cases, where the pus forms low down in the pharynx, or in the posterior pillar of the fauces, the tissues here being denser, the physician is compelled to watch the gradual approach of these abscesses to the surface without being able to give much relief to the patient's suffering. These cases recur regularly every Fall and Spring until the patient reaches that period of life when the affection disappears of itself. The pain is deep-seated and lancinating at first, but soon becomes throbbing and agonizing, and to the patient who has had a quinsy sore throat is a positive indication that another attack has begun. Soon deglutition becomes absolutely impossible, and respiration is impeded because the fauces are blocked up by the hypertrophied and swollen tonsil. The pain is constant and radiates toward the ear of the affected side; the tongue is swollen and coated; the saliva constantly dribbles from the corner of the mouth, partly because he cannot swallow the saliva and partly because there is an increased secretion of the saliva. The patient cannot lie down and sleep for fear of suffocation, and he cannot eat on account of the pain and obstruction; he can scarcely speak; he is worn out, wearied, nervous and apprehensive. To the experienced eye, this picture is in itself sufficient for a diagnosis. I know of no affection of the throat which can simulate quinsy or peri-tonsillar abscess.

I pass on now to the second form of acute tonsillar disease—acute follicular tonsillitis. This is a very common form of acute disease of the tonsil; it is an easy one to study and understand, and an easy one to treat, but there are certain practical points to which I must ask your attention.

First, then, what is an acute follicular tonsillitis? To the best of my belief today, we are dealing in acute follicular tonsillitis with a germ disease, with a blood poison which has its local manifestation in the tonsil. I believe that if certain predisposing conditions exist—for instance, large, ragged, hypertrophied tonsils—a simple, catarrhal imflammation of the throat may be sufficient to make the soil favorable for the reception of that little germ which comes through the air, and entering the open mouths of the follicles, finds a lodgment there, and creates there a croupous inflammation which is the characteristic of follicular tonsillitis, and also gives rise to a blood poison which produces a marked constitutional disturbance of which I shall presently speak. Or it may be that the germ enters the blood and sets up there those poisonous changes which produce again the constitutional symptoms, and finally, produce the local manifestations in the throat. At any rate, please bear in mind that I consider it to be a germ disease. Although this germ has been eagerly sought for by competent microscopists, it has not been discovered, and we simply infer its existence from the clinical phenomena which this disease presents.

As I have said, a croupous inflammation is established in the lining mucous membrane of one or more follicles, and blocks up the follicles, and this obstruction is as-

sisted by blood corpuscles, bacteria, foreign bodies and the like. The follicle having become filled, its contents overflow, as it were, around the mouth of the follicle in the form of a whitish, ovoid, clean looking little mass. A number of these masses may become confluent, giving rise to a larger pseudo-membrane; or they may remain separate, and the tonsil will then appear to be dotted over with these whitish follicles. Both tonsils are usually affected in follicular tonsilitis.

The constitutional symptoms are marked. There is a decided elevation of temperature; in the adult, the temperature not uncommonly reaches 101° or 102° and in children it is not unusual to find a temperature of 104° or 105°. This fever is associated with a rapid, tense pulse, extreme lassitude and a general aching of the whole body. During the first twenty-four or thirty-six hours there is profound prostration, with marked febrile movement. After awhile deglutition becomes difficult and, if you examine the throat at this stage, you will see the little white points appearing on the surface of the tonsils. As they grow, the urgency of the symptoms disappears. The disease runs its course in from five to seven days, but the marked constitutional disturbance only lasts for about forty-eight hours.

How shall you make the differential diagnosis between a follicular tonsillitis and diphtheria? You are constantly called upon to do this, off-hand, at once, and absolutely. Let me say frankly, that there are many cases in which the differential diagnosis between an acute follicular tonsillitis, where a large pseudo-membrane has formed on the tonsil, and diphtheria, in the early stages, is extremely difficult, and I would blame no man, however great his experience in throat diseases, if he insisted upon time for his diagnosis. In the meantime, however, every precaution must be taken to prevent a possible spread of the disease.

Let me mention a few of the practical points which I carry in my own mind when brought face to face with such cases. In the vast majority of cases they will enable you to make a correct differential diagnosis.

1. Remember that the membrane of diphtheria does not remain confined to the tonsil, but that it spreads to the uvula, soft palate, and perhaps to the post-pharyngeal wall; in other words, it may leave the tonsil. The pseudo-membrane of follicular tonsillitis never does this.

2. The membrane of diphtheria is so closely adherent to the underlying parts, and you cannot lift it up from the mucous membrane without rupturing the capillary vessels, causing a slight bleeding. The pseudo-membrane of follicular tonsillitis is easily raised from the underlying mucous membrane with a probe; it leaves no abraded surface beneath it, and very often you can draw out with the pseudo-membrane the contents of the follicle, the mouth of which it covers.

3. The diphtheritic membrane is always thick. In follicular tonsillitis the membrane is thin and delicate.

4. The membrane of diphtheria is always of a dirty, yellowish color; the pseudo-membrane of follicular tonsillitis is pure white, or of a pearl-gray; it is clean and bright. The membrane of diphtheria after twenty-four or forty-eight hours becomes necrotic, and takes on a dirty, blackish-gray color—in short, it looks what it is, a necrotic, dead, or dying membrane. The pseudo-membrane of follicular tonsillitis on the other hand, always remains whitish, pearl-white or gray, and never becomes blackish or necrotic.

5. The tonsillar portion underlying the diphtheritic membrane is of a deep red or bluish-red color; the underlying tissues in a case of foilicular tonsillitis is bright red, never of a very dark, angry color.

These points, I am sure, will assist you, as they have often assisted me in making the differential diagnosis between diphtheria and the pseudo-membrane of acute follicular tonsillitis. Of course, we can go further, and with the microscope determine the presence or absence of the Lœffler bacillus, but I have given you the practical, bedside tests which will usually enable you to answer definitely and quickly regarding the true nature of the membrane.

Now, let me say a word about the contagiousness of follicular tonsillitis. Here, I must deal largely with the individual belief. I believe to-day, as a result of my own experience, that follicular tonsillitis is mildly contagious; that it is not safe to put others in the way of direct contagion; and my advice to you is that it is best to isolate the patient, and particularly to

keep children from being around those suffering from this disease. You should also banish from the sick room adults having hypertrophied tonsils, or suffering from any condition which predisposes to such a contagion.

To simplify the treatment for you, I have had the principal points printed on these sheets of paper, and will distribute them among you. I shall run over them briefly.

First, then in the treatment of peritonsillar abscess, in the interval of the attacks, extirpate the tonsils, and get rid of this predisposing cause. In the treatment of the acute attack, I would say that an attempt to abort an attack is occasionally successful, but it will never do it after the first twenty-four hours; therefore, if this period be gone by, immediately administer anti-rheumatic remedies, such as sodium salicylate, salol, oil of wintergreen, and iodide of potassium, and with the first four doses, give one drop of Fleming's tincture of aconite. As a rule no more than four doses of this powerful drug should be administered. If sodium salicylate be prescribed, give about ten grains, every hour. Another useful measure is to allow the patient to frequently apply bicarbonate of soda to the tonsil with the moistened finger, for it gives great relief to the patient, although I cannot say why it does it. I constantly see tonsils which have been cut and maltreated in various ways; I have told you that the abscess is not in the tonsil, and therefore, it is folly to incise the tonsil. Blood-letting by *puncturing* the tonsil will relieve the tension and pain, but I tell you, never scarify. As soon as the existence of pus is established by digital palpitation, open the abscess by a free incision. The general local treatment consists in gargling the throat with water as hot as can be borne, the use of alkaline and disinfectant sprays to wash away the accumulated tenacious mucus; inhalations of steam, or the application of hot flaxseed poultices, frequently renewed, beneath the angle of the jaw. An application of a five or ten per cent. solution of cocaine will allay the pain. The abscess usually forms by the third day, unless it is in dense tissues.

Now, the treatment of acute follicular tonsillitis is simplicity itself, notwithstanding the great variety of drugs and methods recommended in our various medical works. Every case of follicular tonsillitis can be successfully and quickly treated by the following method:

For the stage of fever and lassitude, there is perhaps nothing better than antipyrine. Later on, nothing is better than quinine and strychnine for the physical prostration. Locally, you should administer every hour a half teaspoonful of the following, which should be slowly swallowed, in order that it may diffuse itself about the fauces:

℞ Tinct. Ferri Chloridi..... dr. ij.
Glycerini..... oz. ij.

You may also apply the tincture of the chloride of iron at regular intervals during the day directly to the croupous deposits on the tonsils, using a kalsominer's brush, one inch wide, which is very much better than the ordinary throat brush. An antiseptic and cleansing gargle is also grateful to the patient. A mixture of listerine and water may be used for this purpose.

In conclusion, then, remember to use the knife whenever necessary, avoid polypharmacy, assist Nature to do her work, and follow the few simple rules which I have given you.

Operating Accident.

A sad and unusual accident is reported to have occurred recently in the operating theatre of one of the London hospitals. One of the surgeons was engaged in sewing up the wound after a laparotomy, and, while in the course of doing so, he seems to have given a flourish to the needle in his hand, which penetrated one of the eyes of his assistant. The latter continued for some moments to attend to his duties, but was afterward compelled, owing to the pain in his eye, to leave the side of the operating table and sit down on one of the benches in the theatre. As soon as the operation had been completed, the surgeon examined the injured eye of his assistant, and found the lens was lying outside the organ, the sclerotic extensively torn, and the vitreous protruding.—*N. Y. Med. Record.*

A lady in distress wrote the following urgent note to her physician: "Dear Dr., please call at once, and bring your urethra with you." He took a catheter.

COMMUNICATIONS.

CHOLERA.*

ERNEST HART, LONDON.

My Professional Brethren—I have not ventured to bring before you any new theme, or one which would in any way depend upon the eloquence or the special capability of the speaker. I have felt that on an occasion such as this, when you have honored me by asking for an address at the general meeting of this great association, I might most usefully occupy your attention by dealing with the subject which, from its own intrinsic importance and from the influence which it is likely to have, which it can hardly fail to have ultimately on the welfare of the population and the nation, should at least intrinsically demand your attention, whether you give entire assent or not to the proposition I shall have the honor to lay before you.

In dealing with the subject of CHOLERA I am dealing with one which has been perhaps more written about, more discussed, and more talked about than any other in our time. It is the subject of almost universal conversation. Since I have been here, questions have been put to me not only daily, but almost hourly. One is, "What do you think of our country?" as to which you may readily imagine I have been giving answers which I am certain have been very satisfactory. Second, "What do you think of the cholera?" "Is the cholera coming?" Then I will venture to mention briefly what I wish to be able to present to you to-day by an incontrovertible amount of evidence. That is, cholera is no longer a thing to be dreaded; it is no longer a thing to be wondered at; it is no longer beyond control. Although it is only a few years since we in Europe and you in America made the acquaintance of cholera, and when we first came in contact with it, it was the most striking and awful pestilence known to our profession. However, the study and application of a single practitioner—an obscure practitioner, but one of the greatest of the world's heroes—the studies of one man carefully followed out have robbed cholera of all its mystery; have pointed out its causes, and have put before us methods of extinction so certain and so easy that it will be a reproach to every nation, and especially a reproach to those great nations so endowed by nature, if in our own time cholera does not become as thoroughly extinct—as nearly extinct, as much a matter of the past—as typhus or the oriental plague, which have been conquered by medical skill and medical advice.

Every theory, every advance in knowledge, goes through certain very well known stages; as a rule, at the beginning it is denied. That is wholesome and necessary for the proof of its accuracy. The skeptic attitude is the necessary attitude. Presently it is ridiculed, and then comes the stage where its leading facts are accepted. Presently they are accepted, and finally they become so contrite everybody says "O yes, we have always known them."

A distinguished gentleman I have seen here to-day reminded me, in our early text books, the knowledge of cholera was summarized in about these words, "Cholera—Diagnosis, easy; etiology, uncertain; causation, unknown; treatment, useless." Well, now we have modified all that. If I had to take those headings to-day, I think you would agree with me in saying this: Diagnosis, difficult, very difficult—I will show you presently how difficult it is; thus, it is not at all desirable, for the commercial interests of the community, that cholera should be too quickly identified, and where it appears in its first early stages it is spoken of in the most endearing terms. When cholera first comes it is reported as cholerine—an attractive word. Presently, like the pleasant little French songs, it becomes, cholerine-cholera, cholera-cholerine. But, there is nothing more difficult, as our recent science has shown, than the diagnosis of cholerine from cholera, and there is nothing a microscopical examina-

* Address to the Members of the American Medical Association, Thursday, June 8, 1893.

tion will show, whether the early or late cases are cholera or cholerine. The diagnosis is no longer easy. We have yet a great deal to learn about the stages which characterize simple cholerine and Asiatic cholera. Another thing, cholera does not stop, as we suppose. You notice the importance of this in connection with the enormous expenditures and the disgraceful efforts to keep it out—a disease which we have invited, and, having invited by our negligence, try to keep out with quarantine. They are obliged, in virtue of their dirt, to fight a disease invited by dirt. It was at one time supposed a man with cholera must go through certain stages and quarantine was sufficient, but you now know the man may walk about with the cholera and may contaminate an entire water-supply. He may, as at one time, cause 16,000 cases of cholera with 6,000 deaths. Cholera, then, is not easily diagnosed. It is only capable of diagnosis by bacillar examination.

Further than that, you know now very well a man may walk out of a cholera hospital cured, so-called, but with a slight diarrhœa. He may infect a river and may slay a community, for his discharges are often laden with germs. In three cases examined for me, the dejections were found to be loaded with bacilli. You see, then, diagnosis is not certain. We can always know when cholera is about, and should take extra care of all these cases of cholerine and premonitory diarhœa. Now, as to the pathology. The pathology I will not stop with to-day. The pathology has now been immensely cleared up, and the pathology of cholera is now no longer mysterious. We know how to deal with it as we do our other bacteriological diseases. Treatment, useless; we know no more of the treatment of cholera now than we knew of the treatment of cholera thirty years ago. And, that is no reproach to us, because for poisons you may find antidotes or partial antidotes, but an infective disease must run its course.

We know now there is such a thing as an evolution of disease. Cholera is one of those diseases which the public like to think of as a disease which comes by providence and goes by drugs. That is exactly the opposite of the facts. Cholera comes by man; it is a man-created disease, and cholera cannot be cured by drugs. Of course, there are drugs which alleviate and diminish the symptoms. Possibly there are drugs which diminish the number of deaths. But, as at the last Hamburg epidemic, in the early stage and in the later stages of epidemics, when patients are going to get well, everything will cure, and that is the time to try specifics. But, in the essential periods, when the epidemic is at the height, no drugs will modify the mortality.

Now then, as to the causation. We are entitled to say in some parts of Europe cholera will never appear again, and with certain precautions here cholera never can appear again. Now, let me take you briefly—I have here an immense mass of figures, but let me take you briefly over the history and analysis of the great epidemics of cholera since 1853, in order to prove from that precisely the point I am endeavoring to bring to your notice. You know, our first outbreak of cholera in Europe was in 1832. I was just looking here—I expect some here will remember 1832. Well, the Annual Register said the cholera left medical men with most opposite views. We know, first of all, it is epidemic and not endemic. We know it always comes from one place. I am ashamed—I am grieved, more than ashamed—to have to name that source of danger of pestilence to Europe and the world. That is India. It is within the Imperial British domains of India cholera is always found. In the earlier outbreaks from India, cholera usually came across the great seas, across the Caucas, and then by caravans and emigrants reached other towns, and finally that ill-fated city, Hamburg. And then, through Hamburg to Europe in general. The other route was by the Mecca pilgrims, the India pilgrims who carried cholera with them to Mecca, and there, by a process I will show you, diffused it throughout the whole of that country, and then brought it on to Alexandria. From Alexandria it took ship and came to Havre or came to England. That is the course it has pursued now on 25 different occasions. And, I notice this: When people travel on foot, on horseback, by caravans, cholera travels correspondingly slow with them. It took three years to come from Odessa to Europe. And, as steamships and railways have increased, its speed has increased. Cholera, then, travels along the lines of human in-

tercourse and precisely with the rapidity of human intercourse. It makes no backward course. It has its back currents as people rest in a place; it has recurrence as the infection lies dormant. The next point is, that cholera, when we come to examine the facts, is a disease which is always carried by dirty people to dirty places and diffused by dirty water.

Now, let us take the places to which it was carried and see what is the demonstration I can offer you that it was carried by dirty water. Well, we will take, first of all, as an example, London. When cholera first came to London everything was mystery. It was in 1851. We did not know how it came. We thought it was blown by the winds, carried by pandemic waves, and we heard of cholera mists, telluric and meteoric influences and all that jargon. Then came one or two more instances. There was a celebrated pump on Broad Street; it was celebrated and the water most beautiful and sparkling. But water sparkles from human nitrates! Well, the Broad Street pump was a celebrated pump and people were sending from all over London to drink the water. It was suggested that it was precisely the people who were supplied with that water who were the ones that died. A clergyman came up and drank the water. It was very noticeable that he drank brandy with the water, for it was thought brandy corrected the influence of the water. We, of course, know it does not. The whiskey hurts you and does not correct the water.

This gentleman drank brandy in his water and ate a mutton chop, and spoke of his brethren who had died, and then he went home and died. It was afterward found this water became sparkling because of matter from the sewers from the neighboring hospital. This demonstration was carried on, and it was found the amount of cholera in all these subsequent epidemics in London were in precise relation to the water supplied with the animal matter. Of course, animal matter is not pleasant to drink, but some old ladies will not change their drinking water, saying that their fathers and grandfathers have drank it and they refuse to change. Of course, it will not kill until poison gets into it.

In London there are the water companies. During the first epidemic the Lambreth company was the purer. About 137 per 10,000 of the population supplied with that water died with cholera, and only about 67 per 10,000 of those supplied by the other company. The experiment was so large and complete there could be no mistake about it. Houses side by side were supplied by companies furnishing water of various degrees of purity By the time the second epidemic appeared, the second company went a great deal higher up for the water supply, and the water was much purer. The proportion of deaths then was just inverted. It now had 30 per cent. less deaths than the company formerly more innoculous. A very ghastly experiment. There is nothing so sensational in the world. If you, who discuss sanitation, would take trouble to put it in a dramatic form, there is nothing which could so seize the public mind. Now, comes the next fact. In 1866—I was then 23 years of age—cholera broke out in East London. I had no skilled, expert hand, but was firmly convinced from study that its cause must be the water and nothing but water. I got, then, a very well-known gentleman to go down and look at the companies' works, and he came back and said, "There is nothing there. The engineer says the water is the ordinary water supplied in the ordinary way and there has been no change." The same result followed an investigation on the second day, but on the third day I found "Pump out of repair" on the books. Well, to make a long story short, I found one huge pump had been out of order and all the water was pumped directly into the district, that was affected with cholera, without passing through the filter bed. They were supplied with this water two days before the cholera broke out. Well, that was a very striking fact. Then we found it was only people of that district who were suffering with cholera. London escaped, for the district supplied by each company is limited by Act of Parliament, but in five weeks 16,000 people were taken with cholera and 6,000 died.

We will now trace how the cholera got into the water. A ship had come by the well-known route from Alexandria with *only* six or eight cases of cholera on board. The vessel was put in quarantine, the patients put in the hospital, and we had almost forgotten it; but when this occurred we traced these cases and found one had gone to a small town. And there only

16,000 people were killed, including the man, the doctor, the nurse, and 13 people of the village. But then came this other fellow, who was discharged as convalescent and had gone to a cottage on the river, the sewers of which connected with the river. He was taken with relapsing cholera. (If you poison rabbits with cholera bacilli, they will get well; but shortly they have relapsing cholera, when the intestines will be found full of cholera bacilli.) Well the man infected the river just at the very moment the water was taken from this point, in consequence of the breaking down of the pump, and distributed over the town. Thus one unhappy man and one unhappy engineer combined to kill all these people, and all got off Scott free. If any man sells me poison, as many a man does by accident, as an unhappy chemist sells morphia for ice cream, or a baker sells flour mixed accidentally with arsenic, even for his accident you have legal recourse against him; but against the distributing of poison by your water companies you have no recourse. Your municipalities are entitled to distribute cholera at intervals, typhoid fever daily and constantly, in all your great cities, and to poison their unhappy clients and yet go Scot free. They suffer no damage, and you have no remedy against them.

Well now I can show you that is true always with cholera. Since 1866, everybody has been so far convinced of the accuracy of this statement that our main experiments have been on water supply. In England we have spent thirty-five hundred million dollars on water supply, one hundred million dollars within the last year on water supply. I am satisfied we can never have an attack of epidemic cholera in England again. Our water supply is not perfect, and we may have limited outbreaks of cholera, but our water supply now places us in much better shape. We have no fear, and can have no fear of cholera in Great Britain.

The great seats of cholera epidemics have been Spain and Italy. And everybody knows, of course, of Hamburg. In Hamburg they knew they were drinking the filthy and impure Elbe water. But Hamburg is a free municipality—sufficiently under control of the citizens to leave them free to do a good deal of evil and not to do a great deal of good. The greatest mortality rate in Hamburg was down near the river, while further away from the river the mortality rate was much less. Hamburg is as absolute a demonstration of the water-born theory of cholera as the world has ever seen. Also the recent outbreak in the dead of winter near Berlin, where cholera broke out in a lunatic asylum, was a mystery. But it was found a single person had come on from Berlin. In Hamburg, by the way, they have a most beautiful system of irrigation. Charming! And the engineers have so arranged matters that the sewerage all passes out the same way into the river. Just below the outlet of the sewerage is the intake of the water supply. And to make things worse, this being in the dead of winter, everything was frozen, and the matter was taken up by the water supply very nearly pure. So, three or four days after the gentleman came to the hospital from Berlin, they had a tremendous outbreak of cholera. That is also the history of all Paris outbreaks. In Paris, during the warm season, a notice is put up stating the water now is mixed and you are only to drink such and such water. But a great many people cannot afford to drink from that supply, and they always have outbreaks of typhoid and cholera in Paris caused by the impure water supply, and it is stopped as soon as the water supply is changed.

And I may say, if it is supplied with pure water, they will never have another attack of cholera in Paris. Marseilles and Tulon are in the same condition. In Marseilles impure water is taken in, and they pass it out again, running great quantities over the streets to clean them. But, cleaning the streets will not stop cholera if you are drinking impure water. After heavy rains, cholera is usually diminished; but, after heavy rains in Marseilles, it was increased because the unhappy people were drinking the water from the rivulets. That was the cause of the cholera in 1866. When that epidemic reached us, I received a telegram, stating my water-born theory of cholera was at fault. Well, the water theory cannot be at fault. "Trace your water-supply up to the top," I told him, and he soon answered, "Cause found." They had traced it up to the top, and found the cause up the mountain. Cholera was prevalent along the frontier, and they

had the whole frontier lined with police and soldiery. These camped at the top of the water supply. That supply was cut off, and the city deprived of water from that source, and cholera ceased within a week. That was a very striking case. Another striking case, perhaps more striking, was in Naples. I saw a little paragraph, stating, we are all very much afraid of cholera and we are taking every precaution at hand. A few cases have broken out. We are pouring large quantities of carbolic acid in the cesspools, and, odd to say, and disagreeable enough, our drinking water all tastes of carbolic acid. What happened was, cholera came, and there were 70,000 deaths—the most calamatous and vast catastrophy of modern times. The doctors were attacked and assassinated. They have since taken better precautions than religious processions or attacking the doctors. They have obtained pure water from beautiful aqueducts. Naples is immune from cholera. By a coincidence, little outbreaks occurred, and at the precise period when the aqueduct was being repaired, and at the moment it was repaired the cholera ceased. Naples, from being the most susceptible to cholera, is now one of the most immune, as any great city may become when you compel your municipalities to do their duty, to supply pure water, pure air and pure soil.

I shall not now detain you further than to point out this, that the latest results of microscopical examination and bacteriological research fully confirm this vast mass of evidence, collected from every city, every country, every epidemic of the last half century. Whereas, clinically and statistically, we can say on a basis of facts and figures, there never has been a country experience an outbreak of cholera, where the cause cannot be traced to the distribution of infected water. That is a matter of clinical observation. So, we may say scientifically now, we thoroughly understand why that is. We know the characteristic cause of cholera is a bacterium, which has this simple property: It is not in itself, and while fresh, very poisonous; that it is not an anærobe but is an ærobe, and its favorite method of development and propogation is in soil and water. The cholera bacillus is not easily communicated in the fresh stage, and it is not easy to infect guinea pigs or other animals with it, but if you cultivate it or let it cultivate itself in water, it becomes very effective, and becomes more virulent as it is multiplied in soil and in water. It is interesting, by the way, to notice it is difficult to infect healthy guinea pigs; but if you dose them with brandy or whisky and make them unhealthy, or if you give them opium, they are easily infected. Acid drinks, sulphuric acid and citric acid, have been shown to be very useful as preventatives. So, all these experiments confirm the broad facts which we have been able to learn from the examinations, and the final result is, if we can exert our influence upon State boards of health, to bring home a sense of responsibility to the executive officers of State, we shall be able to boast as a profession that we have in our generation pointed to the extinction of two great plagues of mankind. We have shown how three plagues can be exterminated, and we should hear no more from typhoid fever or typhus fever. Deaths from these diseases are just as much violent deaths as deaths from arsenical poisoning. They should be the subject for inquest, and it is for us to extend, not only to the rich who can buy mineral waters of all sorts, but to the poor who cannot always obtain sterilized water or boiled water, and for whom we ought not indeed to poison the water and require them to purify it. We should always be supplied with pure drinking water.

The devil shoots hard at the man who makes an honest tax return.

Put a Strong Stick in it.

The drug-store proprietor had employed a new boy for $3 a week. "I'll have a little stick in mine," said the man at the soda water counter. "A little what?" asked the boy. "A little stick," repeated the man with embarrassment. "In your soda-water?" "Yes, of course." The boy prepared the mixture. The man took a swallow, gasped, gurgled, and coughed. and, when he caught his breath, said," "What in thunder did you put in that soda-water?" "Well, sir," replied the boy, "I wouldn't have done it if you hadn't insisted; but as long as you wanted it I gave you the best brand of mucilage there is in the shop."—*Washington Star.*

OVARIOTOMY ON PATIENTS OVER SEVENTY, BY AMERICAN OPERATORS.

MARY SHERWOOD, M. D., BALTIMORE, MD.

In a report of 5 cases of laparotomy performed on patients over seventy years old, published in the *Lancet*, January 21, 1893, J. Rutherford Morison states: "Long lists of successful ovariotomies can no longer serve any good purpose, for it has been proved that the mortality of ovariotomy should not exceed 5 per cent. My excuse for publishing the following cases is the advanced age of the patients. Sir G. M. Humphrey long since pointed out that in old people repair and recovery are likely enough to follow major operations. This is true of abdominal sections —a fact not sufficiently recognized." That this statement is emphasized by facts is shown most conclusively by the statistics in the list of 100 cases of ovariotomy performed on patients over seventy years of age, which I have recently assisted Dr. Howard A. Kelly in collecting. While a complete tabulated statement of these cases, with an analysis of the same and inferences drawn therefrom, is reserved for publication in the *Johns Hopkins Hospital Reports*, at the suggestion of Dr. Kelly I have taken the cases reported by American operators as the basis of the present paper.

That special attention might be called to the cases of American surgeons seems appropriate as this list includes: 1. The earliest case found in the literature on the subject; 2. The oldest case on which ovariotomy has been successfully performed; 3. The greatest number of cases reported by any single operator.

The first ovariotomy on record as having been performed on a woman over seventy years old, was the case of E. P. and Wm. C. Bennett, of Danbury, Conn., who on the 17th of August, 1861, operated on a patient aged seventy-five years. An incision two inches long was made and seven or eight sacs emptied with a trocar. Silver sutures were used in closing the abdomen. The patient "recovered without any mishap."

To Dr. John Homans, of Boston, belongs the honor of having operated on the oldest case on record. In the *Boston Medical and Surgical Journal*, May, 1888, he reports a case of ovariotomy in a patient aged eighty-two years and four months. He removed a multilocular cyst of the left ovary, weighing fifteen pounds, and in December, 1892—four years after operation—reports the patient as alive and well. In addition to having operated on the oldest case recorded, Dr. Homans reports 12 cases of ovariotomy in women over seventy years of age, the greatest number accredited to any single operator.

The table included in this paper contains 38 cases from the original list. Of this number, 33 recovered from the operation, 5 died, giving a mortality of 13.1 per cent. The mortality as based on the complete list of 100 cases is less than this (12 per cent.). The results of the operation are, therefore, very encouraging when one considers that, according to Bland Sutton, in experienced hands the mortality of ordinary ovariotomy varies from 5 to 10 per cent. This rate of mortality becomes increasingly suggestive when it is noted that in the series only 9 cases are reported as simple and uncomplicated. In 23 cases adhesions were more or less numerous, necessitating in 2 cases the removal of the uterus. In this connection the table seems to establish the fact that age in itself need not be considered an additional factor in the prognosis of ovariotomy. In the case of Boldt, the patient was seventy-four years old, cachectic, and much emaciated, with moderate ascites. The entire tumor was firmly adherent, many adhesions so dense as to require severing with scissors or knife; there were also adhesions with intestines. The retro-peritoneal glands were enucleated. The tumor proved to be a multilocular cyst of the left ovary of which the lower and posterior portions as well as the enucleated glands were carcinomatous. This operation was performed in March, 1887, and Dr. Boldt reports the patient as still living—nearly six years after operation. In one of Homans' cases the tumor was so adherent to the uterus that the body of the uterus had to be removed also. The case was that of a woman,

aged seventy-two, from whom Dr. Homans had removed the right ovary five years previously, who had remarried after recovery from this operation, and from whom he now (1877) removed a multilocular cyst of the left ovary together with the uterus. In December, 1892, he reports the patient as living and well. In June, 1890, Dr. H. Marion Sims operated on a patient aged seventy years, removing a multilocular cyst of right ovary, weighing eight pounds, adhesions being so extensive that he was obliged to remove the uterus also, and the patient recovered and is reported as still living in January, 1890.

As the nature of the tumor is an important factor in estimating the results of the operation, an examination of the table shows that the most frequently occurring tumor is the multilocular cyst. Unfortunately, in a majority of the cases there is no histological report of the nature of the tumor extirpated. In one instance—a case of Dr. Kelly's—a careful microscopical examination showed areas of adeno-carcinoma in the cyst wall; another cyst was cancerous at base with involvement of the retro-peritoneal glands, while two of the multilocular cysts are reported as papillomatous; sarcoma, dermoid, solid tumor are noted once respectively, and in seven instances the cyst is unilocular. The absence of results of microscopical examination in some cases makes it impossible to reach any accurate decision as to the percentage of malignancy, although in seven instances the tumor is stated to be non-malignant.

With regard to the ovary affected, we have the statement in 27 cases, in 10 of which the tumor was of the right ovary, while in 17 the left was affected. It is interesting to note that in our list of 100 cases, 72 of which report on this point, the right ovary is involved in 38, the left in 32 cases (in 2 cases both ovaries being affected). No evidence is, therefore, afforded that either ovary is the more frequent seat of disease.

The time of first appearance of symptoms in the majority of our cases shows that the tumors were for the most part rapidly growing, in 6 instances the observation being made less than one year before operation, while in 19 the time was between one and two years. The remaining 6 cases which report on this point give a time varying from three to ten years.

The subsequent history of these cases is a point of great interest; and here, too, the facts of our table give definite information in many instances. As was stated above, 5 patients died within ten days after operation. Of 8 cases reported as dying subsequently, 4 lived less than a year, while 4 others lived from 5 to 10 years after operation. The cause of death in these 8 cases is variously given—pneumonia, heart disease, old age, etc.

Eighteen patients recovered from the operation and are reported as living at present—*i.e.*, in January, 1893, when the facts for the table were collected. In two cases only was this report given less than a year after operation. Nine patients were alive and well one to three years after, and seven have survived operation and are still living from three to ten years after. Evidently we can draw no conclusion from the after-history of the patients against the advisability of operating on the aged, in the face of the fact that 16 of these 38 patients lived from two to ten years after the operation was performed, 12 of this number being alive at present.

The facts shown by our statistics summarized briefly are:

First, that the operation of ovariotomy in the aged presents no essential differences from this operation in cases of younger years.

Second, that the percentage of recovery from this operation in patients over 70, as shown by the results of American surgeons, is 86.8 per cent., the mortality 13.1 per cent.

Third, that the indications and contra-indications for ovariotomy in the aged are essentially the same as for this operation in general.

What some people call prudence is often what others call meanness.

The Surgeon's Enemies.

The surgeon's enemies are almost always sporeless bacilli, and though some of these show great resistance to the action of antiseptics, such as the staphylococcus pyogenes aureus, the common cause of suppuration, it has nevertheless been shown that carbolic acid destroys these organisms more rapidly than corrosive sublimate.—LISTER.

SOCIETY REPORTS.

AMERICAN MEDICAL ASSOCIATION.

Forty-fourth Annual Meeting, held in Milwaukee, Wisconsin, June 6, 7, 8, and 9th, 1893.

SECTION ON SURGERY AND ANATOMY.

Continued Report.

Chairman, Dr. James T. Jelks, of Hot Springs, Ark.

Secretary, Dr. Liston H. Montgomery, of Chicago.

The Section was called to order by the Chairman, who delivered an address on

THE ANTIQUITY OF SYPHILIS, AND MOSES AS A HEALTH OFFICER.

He dwelt upon the plague that afflicted Pharaoh and his household to strengthen the relationship of syphilis as it existed at that time and as it exists to-day.

Dr. A. J. Ochsner, of Chicago, contributed a paper entitled

A REPORT OF THREE CASES OF ACUTE INTESTINAL OBSTRUCTION TREATED BY LAPAROTOMY:

(1) Intussusception; (2) Volvulus; (3) Meckel's diverticulum.

The first case was that of a boy, aged three years, who, a week before coming under observation, fell and immediately felt slight pain in the cecal region, but of brief duration. Occasional pains were experienced during the next few days. At the end of a week severe spasmodic pains were felt in the abdomen, with nausea, vomiting, and a constant desire, with ineffectual efforts, to evacuate the bowels. Intussusception was diagnosticated and the diagnosis confirmed by celiotomy. The vermiform appendix seemed to have been thrown around the ileum, the constriction thus produced leading to the intussusception. The appendix was removed after reduction had been effected. On the fifth day the bowels were moved by a glycerine and water enema. The stitches were removed on the ninth day and the wound supported with adhesive strips. The pulse and temperature were but slightly affected, and the recovery was rapid and complete.

The second case occurred in a man 32 years of age, who fell into a ditch two or three feet deep, experiencing a slight pain in the left inguinal region. Two days later the abdomen became swollen and painful, and there were nausea and constipation. A globular enlargement could be seen in the lower part of the abdomen. Purgatives had been administered for two days without effect, except to increase the pain. Volvulus was suspected, and an operation for its relief undertaken. On opening the abdomen the suspicion was confirmed. The sigmoid flexure was found so distended that replacement within the peritoneal cavity was impossible. A rectal tube was passed, liberating a large amount of gas, after which the bowel could easily be replaced. After the fifth day the bowels were moved daily by enemata. Complete recovery followed without incident, the patient being dismissed thirty days after operation.

The third case occurred in a man aged 81 years, who, while in apparent health, suddenly developed the symptoms of acute shock. There was a sudden severe pain to the right of the umbilicus, which was thought to be due to the presence of gallstones. An anodyne gave relief for two days; then the abdomen became uniformly distended. There were nausea and vomiting, first of the stomach contents, and later of stercoraceous matter. There was no point of special tenderness. An operation was undertaken, and a loop of small intestine was found to have slipped through Meckel's diverticulum. The adhesions were so firm that it was necessary to apply double ligatures and cut between them, so that the condition must have been one of long standing. After the operation, uncontrollable vomiting continued and death occurred thirteen hours later, without reaction having taken place. Regret was

expressed that the stomach was not washed out, as this might have relieved the vomiting. Earlier diagnosis and a younger age would both greatly have increased the chance of recovery.

UNNECESSARY RESTRICTIONS TO SURGERY.

Dr. John B. Roberts, of Philadelphia, contributed a paper on this subject, in which he entered a plea for the treatment of every surgical case on its merits rather than by rule. The opinion was expressed that many patients are detained in bed unnecessarily long on account of fractures of the bones of the legs, and that patients with fractures of the forearm are often likewise burdened with cumbersome dressings long after the usefulness of these had ceased to exist. Sprains and chronic joint-affections often demand massage and passive motion, rather than continued rest. It was held that the habit of restricting the diet of patients for days after an operation is unnecessary, as well as a large number of other customs that have been taught and practiced for so many years that almost no one stops to consider whether they are rational or not.

Dr. John E. Link, of Terre Haute, Ind., reported cases affording evidence of the surgical immunity of the peritoneal viscera. He gave the results of many operations performed in the most careless manner on dogs, and always with recovery of the animal. The object was to show that, when skilled surgical aid cannot be obtained, the family physician should proceed to operate in cases of abdominal injuries or other serious acute conditions, inasmuch as the peritoneum is much more tolerant of invasion than has been generally supposed, and the danger of delay in operating far out-weighs that to be feared from opening the abdomen. Dr. Link demonstrated his method of operating on dogs, and showed several specimens taken from animals previously operated upon.

WEDNESDAY, JUNE 7TH—MORNING SESSION.

Dr. C. Fenger, of Chicago, read a paper entitled

OPERATIONS FOR STRICTURE OF THE URETER IN HYDRONEPHROSIS AND PYONEPHROSIS.

He said that in hydronephrosis or pyonephrosis there must be an obstruction somewhere. In many cases of intermittent discharge, the difficulty is due to oblique insertion of the ureter into the pelvis, and the consequent formation of a valve at the point of junction. The fluid is prevented from passing until the distention and pressure are sufficiently great to overcome obstruction, and the accumulation escapes. Dr. Fenger has operated on such a case by splitting the valve and stiching its margins apart after opening the pelvis. Strictures of the ureter also cause hydronephrosis or pyonephrosis. They may result from ureteritis or from indirect traumatism. A case was reported in which pyonephrosis developed two years after a fall. An operation was performed, the stricture divided longitudinally, and stiches passed in the same direction as the line of the incision, thus converting the longitudinal into a transverse wound. The appearance of blood in the urine for a few days demonstrated the patulousness of the ureter. Recovery was complete. The best incision for this operation is the lumbar one, from the twelfth rib to the crest of the ilium, and then extended to the middle of Poupart's ligament. This gives ready access to the upper two-thirds of the ureter. The lower third can be reached by sacral resection. The value of relieving obstruction to the ureter is shown by the fact that after nephrotomy a fistula remains in 45 per cent. of the cases; while nephrectomy is to be avoided if possible, as the condition of the opposite kidney is generally not known, and the radical operation may result in speedy death from uremia if the second kidney is also diseased.

WHAT OPERATIONS MAY WE PERFORM ON THE GALL-BLADDER?

Dr. J. B. Murphy, of Chicago, followed with a paper on this subject, in which he said that the function of the gall-bladder is to regulate the pressure in the bile ducts, as the air chamber does in the steam pump. In support of this view, reference was made to the fact that the bile is always much more concentrated in the gall-bladder than any of the ducts, and also that in a very large number of operations upon the living subjects, the cadaver, and upon animals, the gall-bladder was never found empty in health. The pathological conditions of the gall-bladder calling for operative interference are chiefly cholelithiasis, cholecystitis,

carcinoma of the head, of the pancreas, neoplasms involving the ducts, carcinoma of the gall-bladder and trauma. The operations, naturally, all necessitate celiotomy. Of 25 cases of simple puncture collected, one-fourth terminated fatally. This is to be explained by the fact that the walls of the gall-bladder are so dense and so slightly contractile that the puncture opening remains patulous, and thus allows the contents to continue to escape. In 23 cases in which an incision was made and drainage provided for, the mortality was 18 per cent. Dr. Murphy has had made a modification of his anastomosis-button, in which one part is two and a half or three inches in length, and being hollow, allows the bile to escape entirely externally to the peritoneal cavity, so that it is impossible for any leak to occur. In 59 cases collected, in which cholecystotomy was performed in two sittings, the death-rate was but ten per cent.—a very favorable showing. The same operation performed at one sitting, as advocated and practiced by Tait, is a much more serious procedure. Of 201 cases operated on by this method, 25 per cent. died, and in many others a sinus persisted. Incision with immediate suture—ideal cholecystotomy—has been practiced a number of times. In 30 cases collected there were 6 deaths—a mortality of 20 per cent. Dr. Murphy advises joining the gall-bladder with the intestine (cholecysto-enterostomy) in all cases in which it is necessary to perform cholecystotomy. This permits of complete closure of the abdominal incision, and digestion is not impaired by the escape of bile externally. Nussbaum was probably the first to employ this procedure, but on account of the great difficulty in effecting the anastomosis, the operation was gradually abandoned. By means of the anastomosis-buttons designed by Dr. Murphy, the operation becomes a simple one that can be quickly performed. Eleven cases have been collected. Seven have been operated on by Dr. Murphy himself; recovery taking place in all. Two other operations mentioned were also successful. The method was demonstrated by an operation on a living dog.

INTESTINAL ANASMTOMOSIS BY AN IMPROVED METHOD WITH TWO PLATES AND WITH TWO KNOTS; EITHER SILK OR CATGUT MAY BE USED.

This was the title of a paper read by Dr. M. E. Connell, of Wauwatosa, Wis. The author exhibited specimens and explained the operation by reference to diagrams. He said end-to-end approximation or lateral apposition may be practiced, the latter being the simpler. The operation is performed as follows: After making the necessary incisions, a suspending loop is inserted in the bowel just beyond the ends of the cuts, and held by an assistant. A suture, three feet long, is made to transfix all of the coats of one margin of the wound, and passed in the opposite direction through all the coats at a corresponding point on the other end of the bowel. This is repeated until the whole length of one side of the wound has been traversed, always leaving a loop of an inch or two.

Then, by turning the bowel over, the other margin of the wound is closed by passing stitches in the same manner; but this time drawing them taut so as to close the wound, This having been completed, the two ends of the first suture are pulled upon, and, after the apposition is accurate and firm, a knot is tied in each end. After the second knot has been tied both ends are cut loose.

Dr. E. W. Andrews, of Chicago, had used Dr. Murphy's buttons in a recent case of strangulated femoral hernia in which it became necessary to resect fifteen inches of gangrenous intestine. He made an end-to-end approximation. The subsequent course of the case was favorable, and there was prompt and satisfactory recovery.

Dr. H. O. Walker, of Detroit, said that one of the strongest points in favor of performing anastomosis by Murphy's method was the short time required to do it.

Dr. Bayard Holmes, of Chicago, read a paper entitled

A CASE OF CHRONIC GLADERS WITH RECOVERY,

in which he said that glanders in man is of two kinds: (1) acute, in which death usually occurs in three or four months, and (2) chronic, in which the patient may recover after three or four years. In the case reported, the patient was a farmer twenty-two years old, who had always enjoyed good health. In December, 1889, one of his horses became stiff, had a dis-

charge from the nose and died in a week. The mate of this horse also became sick, and had numerous pustules over the body. In a short time the patient noticed a sore on one of his fingers. The affection was thought to be a carbuncle. In a short time five foci of the disease appeared in different portions of the body. There was at first sharp, burning pain, like that which follows the sting of an insect, and deep swelling. At three points spontaneous opening took place. When the patient came under observation, it was decided to remove the disease radically by the cautery instead of the knife. The diseased area was scraped thoroughly, the surface brushed with a strong solution of zinc chloride and packed with iodoform gauze dipped in a concentrated solution of potassium iodide. In all, fourteen different lesions appeared, requiring twenty different operations. Adenitis occurred but once. The diagnosis was confirmed by inoculation of animals.

A NEW OPERATION FOR VARICOSE VEINS.

Dr. Ernest Laplace, of Philadelphia, read this paper, in which he said the operation consists in ligating the long saphenous vein at the saphenous opening, and the short saphenous vein between the two heads of the gastrocnemius. The after-treatment consists of rest in bed, elevation of the limb, and careful wrapping in cotton. The patient may be allowed to arise in two or three weeks. Seventeen cases were reported, in six of which the operation was bilateral. All did well, and the ten recently heard from remain free from their trouble. Cocaine anæsthesia was used.

Dr. B. M. Ricketts, of Cincinnati, followed with a paper entitled

SPECIMENS DEMONSTRATING THE OPERATION OF GASTRO-COLOTOMY, END-TO-END ANASTOMOSIS OF GUT, AND THE CONNECTING OF THE GALL-BLADDER WITH THE ALIMENTARY TRACT, AS PERFORMED WITH THE MURPHY BUTTON, AND BY THE MANSELL OPERATION.

The conclusion arrived at from experiments on animals was that the operation of Mansell was one of the best methods so far described. It could be rapidly performed, and met all of the requirements.

Dr. Thomas H. Manley, of New York, read a paper entitled

A FEW NOTES ON TIBIO-TARSAL, TARSAL, MEDIO-TARSAL, TARSO-METATARSAL, PHALANGEAL, TRAUMATIC AND ARTIFICIAL AMPUTATIONS IN THE LOWER EXTREMITIES. SUBSTITUTES FOR PARTS LOST IN THIS SITUATION.

In cases of traumatism of the lower limb the author made a plea for more conservative surgery. He held that not a particle of tissue should be sacrificed that would survive. A secondary operation was to be preferred, if the patient so desired, for the cosmetic effect or the greater usefulness of the member.

Dr. I. N. Quimby, of Jersey City, agreed with the author to save all tissue possible. In 1887, he introduced a modification of Pirogoff's amputation, in which he does not resect the ends of the tibia and fibula, but places the sawn surfaces of the os calcis against the articular surfaces of the tibia and fibula. He regarded this as very important in the case of children, as the epiphysis was thus spared, and the growth of the bone not interfered with.

Dr. Donald Maclean, of Detroit, maintained that the mere removal of the articular cartilege would not interfere with the epiphysis. He considered Syme's operation as the best in this situation and practiced it, especially when the operation was performed for disease.

Dr. Summers, of Wisconsin, desired to endorse the procedure recommended by Dr. Quimby, and declared that a recent traumatic surface united better to a serous surface than to another traumatic surface.

APPENDENDICITIS, WHAT IT IS AND WHAT IT IS NOT, FROM A SURGICAL STANDPOINT.

By Dr. Joseph Hoffman, of Philadelphia. The author said that it was now settled that the appendix was situated in the peritoneal cavity, and, therefore, all inflammations of the process were intra-peritoneal. The anatomical relations of the appendix were such that a considerable degree of mobility was permitted, and the symptoms of appendicitis, therefore, varied in different cases. The presence of pus was always an indication for operation without delay.

Dr. J. B. Murphy, of Chicago, said he would remove the appendix in every case as soon as he had made the diagnosis. He had operated ninety-five times for removal of the appendix with seven deaths, five from general peritonitis, which had been present before the operation, and two from pyemia.

Dr. N. Senn, of Chicago, said we should be cautious not to operate without due consideration, as the operation might present considerable difficulty. Removal of the appendix was to be recommended in recurrent attacks.

Dr. Joseph Ransohoff, of Cincinnati, contributed a paper entitled

THE EXTIRPATION OF ANEURISMS,

and reported two cases treated in this way. One was a case of bronchial aneurism; the other a case of anterior tibial aneurism. In each case an incision was made over the tumor; the vessel traced in both directions; two ligatures applied, both above and below; the artery cut between and the tumor enuncleated. The following propositions were submitted: (1) Extirpation is the ideal operation; (2) in aneurisms of the forearm and leg, no other method should be employed; (3) in aneurisms that suddenly enlarge, and when rupture seems imminent, extirpation should be employed; (4) in recent traumatic aneurisms, the vessels should be ligated above and below, and if a sac has formed, this should be removed; (5) after other methods have failed, extirpation should be employed; (6) arterio-venous aneurisms should be subjected to the same treatment; (7) proximal ligation may be performed when the age of the patient, the location or other causes contra-indicate extirpation.

AN OPERATION FOR ANTERIOR CLEFT PALATE IN INFANTS AND OLDER CHILDREN.

By Dr. John A. Wyeth, New York City. He advises first to drill two holes in the hard palate; pare the mucous membrane from the margins of the cleft, and, with strong scissors or with delicate bone forceps, divide the alveolus on the short side at about its middle, and slide the anterior fragment forward and wire in this position. This closes the anterior part of the cleft. The lip may be operated on at the same time, or subsequently, as seems best.

JUNE 8TH—THIRD DAY.

The first paper read was by Dr. Frederick C. Schaefer, of Chicago, entitled

BRAIN SURGERY,

In which he reported 8 cases. These cases demonstrated the importance of carefully examining every case of injury and of prompt surgical interference in all instances in which a fracture is detected, even if there be no symptoms indicating intra-cranial involvement. In one case, in a man, fifty years of age, in which there was most extensive fracture of the anterior fossa of the skull and of the frontal bone, the patient walked a distance of a mile to his home. There were no symptoms whatever of any cerebral disturbance when the patient was first seen. Operation was advised but refused, and the wound was treated antiseptically.

ARTIFICAL OPENING OF PULMONARY CAVITIES; INSERTION OF RUBBER TUBE AND INJECTION OF CHLORINE GAS.

Dr. E. L. Shurly, of Detriot, read a paper on this subject. The author said that, although pulmonary cavities had been opened artificially occasionally since 1847, the procedure had only recently been recognized as a justifiable one. He recommends the additional injection of diluted chlorine gas into the cavities at intervals of three or four days. The gas is obtained by half filling a Wolff bottle with fresh chlorine water, forcing air through this into the pulmonary cavity.

Dr. J. MacFadden Gaston, of Atlanta, contributed a paper on

THE PRESENT STATUS OF THORACIC SURGERY,

in which he summarized as follows:

1. All penetrating wounds of the thorax may be closed hermetically by suture after allowing the discharge of fluid blood from the opening.

2. Foreign bodies lodged in the bronchi may be removed by incision of the trachea at the lowest available point.

3. Experiments for reaching the bronchi through the chest wall afford little encouragement in undertaking operation upon the human subject.

4. Medication as a preventive and curative agency in pleuritic effusion is worthy of trial before recourse to operation.

5. Aspiration is indicated when there are large serous accumulations, and likewise in pneumothorax, but cannot be relied upon for the relief of purulent collections.

6. Partial resection of ribs is attended with better results in some cases of empyema than the complete removal of the segments of several ribs.

7. The excision of a small portion of one rib, with the introduction of drainage tubes, has been generally attended with good results.

8. Washing out the cavity of the chest is not requisite, except in case of contamination and decomposition of the contents.

9. The operation of thoracotomy for abscess and gangrene of the lung should be accompanied with antiseptic applications and with gauze tamponage.

10. Tumors of the mediastinum admit of interference, but further improvements are requisite.

TUMORS OF THE NECK,

by Dr. William A. Rodman, of Louisville. In this paper the author considered the various cysts of the neck, and of these, those connected with the thyroid gland are quite common. In the treatment of such cysts, the speaker said that Kocher recommended partial excision of the gland. Total excision led to the cachexia strumipriva. In 18 cases of total extirpation observed by Kocher, but two failed to develop the cachexia; while of 28 partial excisions, no untoward after-effects were exhibited in any of the cases. Lymphomata of the neck were by far the most frequently observed. Sarcoma was more common than carcinoma. Unless seen early, cases of sarcoma of the neck did not offer satisfactory conditions for surgical interference. The author recommended the removal of tuberculous glands of the neck, as the infection spreads through the lymphatics and involves other glands.

Dr. Joseph Price, of Philadelphia, read a paper entitled

THE RELATIVE MERIT OF THE PRESENT METHODS OF TREATING PYELO-NEPHROSIS.

When the patient cannot stand a prolonged operation, incision and drainage should be employed. If there remains any secreting structure of the kidney, it is well to perform nephrotomy, as the possibility of a horseshoe kidney should be borne in mind. In this event, removal would result in speedy death from uremia. In the surgery of the kidney, as elsewhere, the simplest procedure that will meet the indications should be employed. Dr. Price related that he had performed incision, irrigation, and drainage in seven cases without a death.

THE SURGERY OF THE URETER,

by Dr. W. Van Hook, of Chicago. He said that the fact that the ureter was sometimes injured during abdominal and pelvic operations led him to devise a means of uniting the divided ends. One end is lighted, a longitudinal incision made above the ligature, and, by means of two threads, the other end is invaginated into the longitudinal incision. The opposed portions are carefully united, and if desired, covered with a flap of peritoneum to make the union more perfect. It is recommended, when it is desired to implant the ureter in the bladder, that the ureter be first stitched in the abdominal wound, and later, the bladder stitched as high as possible in the abdomen; and when adhesions have become firm, the ureter may be implanted in the bladder with considerable hope of entire success. It necessitates three sittings to complete the operation, but the results justify the method. The author advises against implantation of the ureter into the rectum. Other objections were the occurrence of ureteritis and pyelitis.

The speaker presented the following general considerations:

The extra-pelvic portion of the ureter is most readily and safely accessible for exploration and surgical treatment by the retro-peritoneal route; hence all operations upon the ureters above the crossing of the iliac arteries should be performed extra-peritoneally, except in those cases in which the necessity for the ureteral operation arises during celiotomy. The intra-pelvic portion may be reached by incision through the ventral wall, the bladder, the rectum, the vagina in the female, or the perineum in the male. The ureter is not only exceptionally well protected from injury, but by its elasticity and toughness resists violence to a remarkable degree. The histology of the ureters furnishes most favorable conditions for the healing of wounds. Longitudinal wounds of the

ureter at any point heal without difficulty in the absence of septic processes and under the influence of ample drainage. In all injuries, when the urine has been septic before operation, or when the wound is infected during the operation, drainage must be effected posteriorly. The chemical composition and the reaction of the urine should be studied in all injuries of the ureter, the urine being rendered acid if possible and the specific gravity kept low. The pelvis of the ureter is, *cæteris paribus*, the most favorable site for wounds of the ureter, as scar contraction is not likely there to be productive of ill results. In aseptic longitudinal wounds of the ureter occurring in the course of celiotomy, suture may be practiced as recommended by Tuffier, and the peritoneum protected by suture. Transverse wound of the ureter involving less than one-third of the entire circumference of the duct, should be treated by free extra-peritoneal drainage and not by suture. In transverse injuries in the continuity of the ureter involving more than one-third of the circumference of the duct, stricture by subsequent scar contraction should be anticipated by converting the transverse into a longitudinal wound and introducing longitudinal sutures. In complete transverse wounds of the ureter at the pelvis, sutures may be used if the line of union be made as great as possible. In complete transverse injuries of the ureter in continuity, union should not be attempted by sutures. In complete transverse injuries of the ureter in continuity, union with subsequent scar contraction may be obtained by lateral implantation. In complete transverse injuries of the ureter very close to the bladder the duct may be implanted, but with less advantage into the bladder directly.

In transverse injuries of the ureter with loss of substance, the following conclusions were formulated:

1. At the pelvis of the ureter, continuity may be restored by Kuster's method of suture, provided the several ends can be approximated.

2. Rydygier's method of ureteroplasty in such injuries should be tried, if sutures cannot be utilized.

3. The primary operation should at least fix the ends of the tube as nearly together as possible. In both intra-peritoneal and retro-peritoneal operations the urethral ends can be approximated, even after the loss of about an inch of substance.

4. The use of tubes of glass and other materials for the production of channels, to do duty in place of destroyed ureteral substance, is rarely successful, and even if temporarily successful the new duct is almost sure to be choked by scar contraction.

The implantation of the cut ends of a ureter into an issolated knuckle of bowel is objectionable: (*a*) Because the bowel is not aseptic; (*b*) because the operation is dangerous. In injuries of the portion of the ureter within the pelvis, with loss of substance, the ureter should be treated as follows: If possible the continuity of the uterer should be restored by lateral implantation. If this is not possible, the ureter in vaginal operations, particularly in vaginal hysterectomy, should be sutured to the base of the bladder, with a view of future vesical implantation or formation of a vesico-vaginal fistula with kolpokleisis. In injuries to the pelvic ureter during celiotomy, when the continuity cannot be restored, and when vesical or vaginal implantation cannot be effected in the female, or vesical implantation in the male, the proximal extremity of the duct should be fastened to the skin, at the nearest point to the bladder arch. In such cases, as well as in ventral ureteral fistulae due to other causes, the bladder may be distended and sutured to the abdominal peritoneum and muscles as high as possible, and at a second operation the ureter may be implanted extra-peritoneally into the bladder. If the ureter will not reach the bladder, a flap of bladder wall may be cut out extra-peritoneally and reflected upward to meet the ureter and form a tube. It is legitimate under such circumstances to try Rydygier's method.

Implantation of one or both ureters into the rectum is absolutely unjustifiable under all circumstances, because: (*a*), the primary risk is too great; (*b*), there is great liability to stenosis at the point of implantation; (*c*), suppurative uretero-pyelonephritis is almost absolutely certain to occur. Ligation of the ureter to cause atrophy of the kidney is unjustifiable.

ANALYSIS OF ONE HUNDRED AND TWENTY-FIVE CASES OF HERNIA OPERATED ON FOR THE PURPOSE OF RADICAL CURE.

by Dr. Henry O. Marcy, of Boston.

The author said, continued experience and observation had confirmed the opinion formed many years ago, that the army of truss bearing sufferers will constantly grow less and less, as cases of hernia are subjected to proper operative procedures. The mortality of radical operations for hernia in good hands was very small, and the proportion of cures was very creditable.

Dr. Donald Maclean, of Detroit, followed with a paper entitled:

TRAUMATIC ANEURISM OF THE COMMON FEMORAL ARTERY, WITH LIGATURE OF THE EXTERNAL ARTERIES.

He reported two cases, and on account of the position of the aneurism, and the numerous and important branches that the femoral artery gives off, he deviated from the treatment usually followed and ligated the external iliac artery. Both cases recovered.

Dr. D. J. Hayes, of Millwaukee, reported two cases in which he had operated for the establishment and maintenance of a urethra above the symphysis pubis in chronic prostatic obstruction. The speaker paid a compliment to Dr. Hunter McGuire, who first devised the operation for this condition. The procedure was to be recommended on account of its ease of performance and the very satisfactory results.

THREE CASES OF TRAUMATIC RUPTURE OF THE SMALL INTESTINE, WITH EARLY OPERATION.

This was the title of a paper read by Dr. H. C. Dalton, of St. Louis. One case termimated fatally on account of operation being delayed too long. The other cases made satisfactory recoveries. The author urged immediate operation in such cases.

Dr. Howard A. Kelly, of Baltimore, read a paper on

URETERECTOMY.

He exhibited several photographs, showing the incision and various steps of the operation.

Dr. I. N. Quimby, of Jersey City, reported the case of a boy in which, a few hours after receiving a blow upon the head by a stone, convulsions supervened. It was decided to trephine after consultation. A button of bone was removed and the internal table was found much depressed and splintered. The patient made a complete recovery.

JUNE 9TH—FOURTH DAY.

Dr. A. Dallas, of New York City, contributed a paper entitled:

A NEW TREATMENT OF HERNIA,

in which he is said he devised a new form of truss, which consisted of a covered steel spring which was adapted to the body over the iliac crests, the anterior arm descending almost vertically and covering the entire inguinal canal. Perfect retention with the least pressure, comfort in wearing, and stability in proper position were the advantages claimed for the truss. The author recommends the employment of hypodermatic injections of morphine and atrophine every 15 minutes until the patient is comfortable, in cases of strangulated hernia, these injections to be made about the hernia. Should operation finally become necessary, it may be performed under morphine narcosis. A modification of MacEwen's operation was advised for the radical cure.

Dr. Ernest T. Tappy, of Detroit, read a paper entitled,

A CASE OF SUCCESSFUL END-TO-END SUTURING OF INTESTINE.

The patient was a man of 40 years of age, with a strangulated hernia for five days, and when he first came under the doctor's care, the sac and hernia were gangrenous. The sac had already been opened by a physician. One week after admission, when a line of demarkation had formed between healthy and unhealthy tissue, the adhesions were separated, a fresh section made, and end-to-end approximation of the bowel performed and maintained by suture of the mesentery, mucous membrane, and of the serous surface. There was complete recovery without complication.

Dr. A. B. Kirkpatrick, of Philadelphia, described a new applicator for introducing medicaments into the urethra, uterus, and rectum, which is made of aluminum, silver, or hard rubber, and consists of a cylinder of about 8 inches long, with an accurately adjusted piston. The author had found that a powder of iodoform, boric acid, morphine, and atropine, introduced by this applicator, was almost a specific in acute gonorrhea.

A NEW METHOD OF TREATMENT FOR STRICTURES OF THE RECTUM.

Dr. Joseph B. Bacon, of Chicago, read a paper on this subject. The operation consists in performing celiotomy in the Trendelenburg position. The rectum is exposed and the male half of the Murphy button is introduced into the sigmoid end, and the female half introduced on a staff through the anus and to the proper position in the rectum, an anastomosis thus being made around the strictured portion. In the application of the button, the portion in the sigmoid is sutured, but in the rectual half, a small opening is made in the bowel wall, and the cylinder crowded through and the button clamped.

Dr. W. P. Verity, of Chicago, read a paper on

COMPOUND FRACTURES OF THE SKULL,

which was illustrated by drawings.

Dr. E. A. Tracey, of Boston, described a new material for surgical splints and jackets, and a method of applying it. Wood-pulp is the material that he employs, prepared in sheets, and from them suitable patterns are cut.

SECTION ON PRACTICE OF MEDICINE.

Dr. Charles G. Stockton, Buffalo, N. Y., Chairman.

Dr. George W. Webster, Chicago, Ill., Secretary.

The first paper read was the Chairman's Address by Dr. Stockton, entitled

A REVIEW OF ULCERATIVE ENDOCARDITIS.

He said that a few years ago endocarditis was considered a simple inflammation of the lining membrane of the heart. After Osler's lectures in 1885, it became clear that the disease was sometimes infectious, and endocarditis was spoken of as acute, chronic and malignant and ulcerative. In relation to rheumatism, reference was made to the chemical theory of Prout and the nervous theory of Mitchell, but the disposition was manifested to accept the germ theory as being more rational. From the known facts it was concluded that endocarditis may, under favorable conditions, arise from any one of a multiplicity of special causes, and that its course may be as variable as the causes are dissimilar. Of the two classes, malignant and non-malignant, the paper dealt with the former. Ulcerative endocarditis depends upon the presence of a micro-organism that generally attacks the endocardium as the result of some preceding affection. Some forms of micro-organisms have the apparent faculty of inducing endocarditis in the healthy organism, and are regarded as special to this form of disease. Weichselbaum has discovered four such organisms; Fraenkel and Saenger haxe described one, and Lion and Girode still another. The bacillus coli communis has, in some cases, been the active agent in the development of this disease. A case has been reported by Dr. W. T. Howard, Jr., in the *Johns Hopkins Hospital Bulletin* for April, 1893, in which malignant endocarditis was found to depend upon a bacillus having morphologically and culturally the characteristics of the bacillus of diphtheria, although the patient presented no history of having had diphtheria. Different micro-organisms produce different pathologic chemical results. Some organisms invade the mitral and some the aortic valve by preference. Careful observations show that the main valves are first invaded. According to Saenger, the valves in a pathologic state contain vessels in which colonies of bacteria are found, so that the process may be primarily intravalvular; but in many cases the disease appears upon the free surface of the valves.

In Taylor's series, in 11 of 53 cases of endocarditis the lesion occurred on the right side. Lion suggests that aerobic bacteria grow best in the arterial blood of the left side, and anaerobic in the carbonized blood of the right heart. The opinion was expressed that cases of malignant endocarditis recover, and that it is a mistake to apply the term simple endocarditis to all cases that have a favorable termination.

Dr. J. G. Truax, of New York City, had seen 13 cases of ulcerative endocarditis which were fatal. Most of his cases

had articular rheumatism. In two-thirds of them a mistake in diagnosis was made, and the true condition made known by autopsy.

Dr. Henry D. Didama, of Syracuse, dwelt upon the experiments of Richardson, who, he said, produced not only articular rheumatism, but also endocarditis, by injections of lactic acid.

Dr. H. J. Herrick, of Cleveland, Ohio, maintained that endocarditis was a secondary form of disease, and that if the blood was in perfect condition, there could be no endocarditis. Treatment should be directed to the predisposing cause.

SOME CONSIDERATIONS BEARING ON THE TREATMENT OF PNEUMONIA,

by Dr. W. H. Washburn, of Milwaukee, Wis. The author said that the death-rate of pneumonia was gradually on the increase in this country under the present methods of treatment. As long as physicians were unable to destroy the *materies morbi* of the disease, all efforts at treatment were but palliative. Support of the nervous system and elimination of the specific poisons of the disease and the products of retrograde metamorphosis were the indications for treatment. Alcohol was to be regarded not as a stimulant, but as a sedative.

Dr. R. H. Babcock, of Chicago, contributed a paper entitled

THE MEDICAL ASPECTS OF EMPYEMA FOLLOWING OR COMPLICATING CROUPOUS PNEUMONIA,

in which he said that, owing to its insidious onset, purulent pleurisy was frequently overlooked. He would especially call attention, as supporting this belief, to the vague and general manner in which the disease was treated by most of the text books. In many instances the disease was secondary to some pre-existing affection, especially croupous pneumonia and influenza. If due to the presence of the pneumonia coccus, there was a great tendency to spontaneous evacuation through the bronchi.

He recognized four types of empyema. The prognosis in the form of pneumonia due to the pneumonia coccus was good. Such cases usually yielded to simple puncture and drainage. The other forms indicated a graver prognosis, and required more active surgical intervention.

Dr. W. A. Batchelor, of Milwaukee, said the treatment of empyema should consist in incision and drainage. Many cases could be cured by aspiration, and he believed that bacteriological investigations of pleurisy would lead to better methods of treatment.

Dr. Martine, of New York, held that the reduction in the pulse rate in cases of pleurisy would prevent empyema.

Dr. George W. Webster, of Chicago, had treated seven cases of empyema, in persons ranging in age from 3 to 40 years, within the last sixteen months, by washing out the pleural cavity with a saturated solution of boric acid. All of the cases recovered.

JUNE 7TH—SECOND DAY.

POINTS IN THE CLINICAL HISTORY OF ERYSIPELAS,

by Dr. J. M. Anders, of Philadelphia. Attention was directed to the influence of the various seasons of the year upon the disease. The author collected a large number of cases from hospital and private practice, and after careful study found that the largest number of cases occurred in April, and that from April to August there was a gradual decrease in the number. More than one-half of the cases collected occurred under 30 years of age, and these were largely between the ages of 20 and 30. Of 1787 cases, 1239 were males and 548 females. Slight wounds and contusions of the face and head were exceedingly common as starting points of the disease. In only 7.8 per cent. was the affection secondary to chronic disease. The author said that the average duration of the affection in over one thousand cases was twenty-five and one-tenth days; that if the individual was in an enfeebled condition the duration was longer. Relapses occur in about ten per cent. of all cases.

Dr. H. A. Hare, of Philadelphia, said that erysipelas was quite frequent in cases of pronounced nasal and buccal lesions. In typhoid fever, for example, such lesions afforded entrance to the specific organisms of the disease.

DEMONSTRATION OF GASTRODIAPHANY,

by Dr. Max Einhorn, of New York City. One of the objects of the paper was to point out the great difficulty of making a

correct diagnosis of abdominal disease, more particularly in the case of the stomach, which was the organ most frequently diseased. The apparatus exhibited by the author consisted of a soft rubber tube, to which was attached an Edison lamp. The apparatus can be introduced into the stomach with no more difficulty than is required in introduding the ordinary stomach tube. The patient must be in a fasting condition, and immediately before the passage of the tube, should be given one or two glasses of water. The author exhibited two patients and demonstrated the working of the apparatus.

Dr. John Aulde, of Philadelphia, alluded to the value of translumination in the diagnosis of laryngeal disease, particularly in young subjects, and said it might be of value in gynecic and rectal disease and abdominal surgery as an aid in diagnosis.

Dr. Joseph Eichberg, of Cincinnati, followed with a paper entitled

A CASE OF SUNSTROKE, WITH CONSIDERATIONS OF ITS TREATMENT.

The true pathology of sunstroke had not yet been determined, although it was known that there occurs a disturbance of the heat regulating center. The prognosis was influenced by the degree of cerebral activity. Treatment consists in reduction of the temperature by external applications of cold, and the administration of digitalis or the hypodermic injection of digitalin to stimulate the heart muscle.

THE TREATMENT OF INSOLATION,

by Dr. R. R. Ross, of Buffalo, N. Y. The author did not dwell on all that is conveyed by the term thermic fever, but confined his remarks to sunstroke. He said that high degrees of temperature might be borne if the air was dry, because he considered sunstroke very rare in dry hot countries, and that those who had clean skins and a good vasomotor system were less prone to it. The prophylactic treatment consisted in cleanliness and the avoidance of mental and physical exhaustion. He looked upon antiseptics as useless and dangerous, for the reason that they may produce heart failure and exert a destructive influence upon the blood corpuscles. An important point in treatment was the reduction of the temperature. He thought it was wrong to pack the patient in ice, on account of the shock that results. The temperature of the bath should be 45 or 50, and the patient should be immersed for two or three minutes, the head being cooled as rapidly as the body. He recommended rubbing the skin with a coarse towel, and having the process repeated. Atropine, sulphuric ether, camphur and strychnine he uses according to circumstances. In the case of convalescents a diet of liquid and farinacious food should be adhered to.

Dr. Hare, of Philadelphia, was inclined to doubt that the danger in sunstroke was due to conbustion, believing that it was due to the change that takes place in the nervous system.

Dr. N. S. Davis, Jr., of Chicago, read a paper entiled

SOME REMARKS ON DIABETES.

in which he advised in the treatment the use of Clemens' solution, except in the more advanced cases. Unless the desired therapeutic effect was obtained before, the dose should be increased to toleration. Doses of 6 or 8 minims were usually sufficiently large. The use of arseniate of strychnine had proved efficacious in his hands. He had tried pancreatic extracts, but had found them of doubtful value.

Dr. Didama, of New York, cited a case in which treatment with pancreatic extract was entirely useless.

HEADACHE,

by Dr. James W. Putman, of Buffalo.

The author first considered the part played by heredity in a given case of headache, and secondly dwelt upon the personal history as regards syphilis, dyspepsia, etc. After the above had been considered, the history of the headache should receive attention, when, and under what circumstances it came on. The character of the headache itself was then to be observed, its periodicity, location and characteristics. The author then discussed the anemic and congested classes of headache, together with the methods of treatment. He said that reflex headache from eye-strain was common, but oculists failed to afford relief owing to imperfect correction of the ocular defects.

Dr. J. T. Whitaker, of Cincinnati, said that eye strain was not such an important factor as a great many physicians had supposed.

AN ADDITIONAL NOTE ON THE TREATMENT OF EXOPHTHALMIC GOITER.

by Dr. E. D. Ferguson, of Troy, N. Y.

The author said that the 15 or 20 cases that had come under his care since a previous report had markedly improved under treatment with strophanthus, and there had been no relapses. He recommends for the initial dose 8 or 10 drops, three times daily, but the dose varies in different cases.

Dr. Hare, of Philadelphia, said he had never found strophanthus to act well, but that occasionally it causes severe diarrhœa.

Dr. Anders, of Philadelphia, said that when strophanthus was used alone it did not give good results. If arhythmia existed however, strophanthus and digitalis combined regulated the action of the heart much better than either of the drugs when used alone.

THE MUTUAL INTEREST OF THE MEDICAL PROFESSION AND INSURANCE COMPANIES IN THE PROLONGATION OF LIFE

was the title of a paper read by Dr. Charles Denison, of Denver, in which he did not advocate the insurance of invalid risks, but believed that the time would come when a better understanding of the varying longevities of invalids might lead to a knowledge of their insurability. The author believed that latent tuberculosis was the cause of more failures in health than was usually supposed, and urged the employment of systematic safeguards against accepting such lives on an equal footing with selected healthy risks.

Dr. John H. Hollister, of Chicago, in a paper entitled

THE TREATMENT OF CHOLERA,

accepted Koch's bacillus as the cause, and said that one of the most important problems was to prevent the transfer of this organism from one person to another. A certain means of safety was the sterilization of everything coming from the sick. Opium was now repudiated in the treatment. Hypodermic injections of thymol had proved very successful. Of all drugs perhaps there was no one more highly extolled than tannic acid, given by rectal injection along with large amounts of water.

Dr. J. T. Whittaker, of Cincinnati, Ohio, contributed a paper on

THE PRESENT STATUS OF TUBERCULIN.

The speaker first set forth the reason and methods of its action. Human tuberculosis differed from laboratory tuberculosis. Invasion by micrococci, he said, was often secondary to the tuberculous. As a diagnostic agent, tuberculin was of the utmost service and certainty. In incipient cases it was valuable as a therapeutic agent, and in other diseases when the existence of tuberculosis was masked by unexpected symptoms.

In the discussion, Dr. Denison, of Denver, said he often used tuberculocidin in preference to tuberculin. As a diagnostic agent he especially commends its use.

JUNE 8TH—THIRD DAY.

The first paper read was by Dr. Henry D. Didama, of Syracuse, entitled

BRIEF CLINICAL MEMORANDA.

In the first place saliva is an excellent substitute for olive oil, glycerine, cosmoline or other substance as a lubricant for catheters. Although containing bacteria, saliva is not septic and is always at hand. Second, in preparing hemorrhoids for injection he anæsthetizes by means of ether or the A. C. E. mixture, and follows by digital dilatation of the anus. He then brings down the hemorrhoids, ligates those with small pedicles, tying with a bow knot, and then injects the material to be used. Third, he recommends the following facile reduction of prolapsed hemorrhoids: The patient is placed on his back with his knees drawn up. Cocaine is applied to the hemorrhoids if tender. These are then thoroughly lubricated with vaseline, and with the tips of two or three fingers pressed up while the patient at the same time is directed to bear down. The hemorrhoids readily slip up into the bowel. The patient himself can perform this operation without the aid of a second person. Fourth, for the ready relief of lumbago, the author has for ten years or more employed large dry cups over the entire lumbar region. Four cups are applied at once, and the application is repeated. In fifteen minutes the pain is entirely gone.

In the discussion of the paper Dr. Frank Billings, of Chicago, said the patient was in constant danger of infection from the use of saliva as a lubricant. He believes that saliva frequently contains pathogenic and pyogenic bacteria.

Dr. Charles Denison, of Denver, said there was danger of transmitting tuberculosis by the saliva when used as a lubricant. He also believes that it frequently contains tubercle bacilli.

Dr. John Aulde, of Philadelphia, laid stress upon the rheumatic origin of lumbago. He recommended the use of the iodide of potassium and the salicylates, as well as the faradic currents.

Dr. Joseph Price, of Philadelphia, considered appendicitis one of the most troublesome conditions met with by both gynecologists and abdominal surgeons. He takes the ground that the condition is purely a surgical one, and advises operative interference in every case.

Dr. Whittaker, of Cincinnati, preferred the word typhlitis to appendicitis, and said that no physician would object to operation in cases in which ulceration was present.

Dr. Joseph Hoffman, of Philadelphia, said there was a possibility of a case of appendicitis getting well without treatment, either medical or surgical, but convalescence was prolonged under such circumstances.

Dr. L. S. McMurtry, of Louisville, maintained that many cases of appendicitis were reported in the mortality lists as peritonitis, more particularly those occurring in males.

Dr. J. B. Murfree, of Murfreesboro, Tenn., contributed a paper on

DIPHTHERIA,

in which he said that the greatest number of cases occur between the ages of three and twelve, and but very few in infants. The disease may be transmitted by cows, and the period of incubation is from two to five days. The prognosis was always unfavorable. In the treatment few remedies are of much avail, and none is specific. Isolation and disinfection must be absolute. Antiseptic mouth washes, astringent gargles, the swallowing of ice, pepsin, trypsin, etc., to destroy the membranes; tincture of ferric chloride for the blood; mercuric chloride, alcoholic stimulants, especially large and frequent doses of whiskey, constitute a useful method of treatment.

Dr. E. J. C. Minard, of Brooklyn, followed with a paper on

EARLY ASPIRATION IN ACUTE PLEURITIS.

The diagnosis of the condition is not always easy. The author advised early aspiration.

THE DETECTION AND SIGNIFICANCE OF CARBO-HYDRATES IN THE URINE,

by Dr. Charles W. Purdy, of Chicago.

The remarks of the author were confined mainly to the consideration of glycosuria, for the quantitative determination of which he proposed a new test. The test solution consists of copper sulphate, 48 grains; pure potassic hydrate, 144 grains; strong ammonia, U.S.P., 9 ounces; glycerine, 6 drachms; distilled water, 20 ounces. It was said to be stable and reliable. Some of the blue solution is placed in a vessel and the urine is dropped in from a buret until the blue color disappears, when the amount of sugar present may be estimated.

JUNE 9TH—FOURTH DAY.

Dr. H. A. West, of Galveston, Tex., contributed a paper entitled

THE ASSOCIATION OF DISEASES AND MORBID PROCESSES,

in which he directed attention to the difficulty of ascertaining after death the exact morbid condition that was the immediate cause of death. Lowering of individual vitality as a result of famine, over-work, and intemperance is one of the main predisposing causes of various morbid condititions. A widespread disobedience of sanitary laws is the common origin of most of our epidemic diseases. In all acute infectious diseases there is a great tendency to involvement of the respiratory organs, and especially to croupous and catarrhal pneumonia. Cardiac disease is usually indicated by symptoms referrable to other organs, as dyspnœa, digestive disturbance, intesinal or renal derangement. Derangement of the function of one organ will give rise to modification of associated functions elsewhere. If the liver be primarily involved there occurs stasis of the entire portal system, with gastric and intestinal catarrh, constipation or diarrhœa, jaundice, etc. Inherited diatheses predisposed to the development of tuberculosis. Scrofulous and gouty individuals are subject to tuberculosis and lithemia respectively.

Dr. Charles Denison, of Denver, directed attention to the association of fibrosis with tuberculosis. He believes that the so-called tubercles are the vaults in which nature imprisons the tubercle bacilli to prevent their multiplication.

Dr. X. C. Scott, of Cleveland, took the position that disease was not inherited; that a certain state or condition that favors the contraction or developement of certain diseases may be transmitted from parent to child. As long as the general system was in a good condition the individual posesses a certain degree of immunity.

Dr. George W. Webster, of Chicago, maintained that syphilis could be transmitted by heredity.

THE NEW CHEMESTRY OF THE STOMACH AS A MEANS OF DIAGNOSIS AND GUIDE TO THERAPEUTICS, BASED UPON THE RESULTS OF ONE THOUSAND ANALYSIS OF STOMACH FLUIDS,

by Dr. J. H. Kellogg, of Battle Creek, Mich. In this paper the author described a new method of analyzing the stomach fluids, and proposed a new classification of gastric diseases functional in character.

Dr. Charles Dennison, of Denver, exhibited a new syringe for the injection of tuberculin, which he considered much better than the one usually employed. The syringe is marked in minims on one side, and on the other milligrams. The author uses a one per cent. solution for doses under 20 milligrams, and a ten per cent. solution for doses over 20 milligrams.

Everybody Has Seen Her

Do you know the doleful person? asks the *Omaha World Herald.* She, for the doleful person is almost always a woman, is always a good neighbor in health, and tries to be neighborly in sickness. But she makes a miserable failure at the latter. You know how she acts. Don't you remember the last time the baby was sick? After you had watched by the little one's bed day after day and night after night, and watched the roses fade from the little one's cheek, and saw the little one's form waste away? And don't you remember how she tried to cheer you up with a one-sided conversation, something like this:

"Why, Mrs. B—, how much worse the baby looks this morning. She looks just like Sarah Jones' baby did the night before it died."

"Gracious! I never saw a child so wasted away as Sarah's was, except yours. We just done everything for the child, but it wasn't no use."

"I never will forget how Sarah took on at a funeral!"

And the doleful neighbor suddenly remembers that she has to run back home to "set a sponge," and when she goes you hope she will never return. You look again at the suffering babe and feel that your heart must surely break.

But suddenly there is a knock at the door, and in comes the—well, sun-beam neighbor, is as good a name as any. She was over the evening before and quietly and unobtrusively helped to do so many needful things, and when she left, she left a word of cheer. And when she comes this time she says something like this:

"Why, how much better the baby looks this morning!"

And don't you remember what a bright gleam of hope crossed your mind?

"I never saw a child improve so much in so short a time before. I am sure the baby will soon be well."

And then the sun-beam neighbor re-arranges the bed, adjusts the blinds, tells you she will call again in a few hours, and hurries home.

Honest, now, didn't she leave a confident feeling behind her? She felt better and more hopeful. Baby, even, seemed to rally under the words; and when at last the little one was playing around your knee again, didn't you think of the words of the sun-beam neighbor?

The doleful neighbor has frightened more mothers to death, buried more babies and caused more tears than all the plagues combined.

She should be suppressed.

The man who never praises his wife deserves to have a poor one.

Masturbation, according to Prof. Parvin, is of rare occurrence in the female sex, the percentage being only about three-tenths of one per cent., whilst among the male sex it is about three per cent.

THE MEDICAL AND SURGICAL REPORTER

ISSUED EVERY SATURDAY

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SATURDAY, JULY 8TH, 1893.

EDITORIAL.

PREVENTIVE MEDICINE.

The address of Mr. Ernest Hart, of London, before the American Medical Association at its recent meeting, demands the attention of the whole medical fraternity. With startling clearness, he shows the relation of Cholera to the water supply and presents a mass of evidence that cannot be put aside or argued away. London, with its enormous population, and with its water supply divided between several companies, each drawing from a different part of the stream, presents an experiment which it would be hard to duplicate. The lesson is plain and the words of the text are written in human lives, sacrificed silently, without the knowledge that they were yielded up for any great cause, without the glory of war, without the religious enthusiam of the martyr; and yet they were martyrs in a cause greater than that for which men have fought and suffered—the prevention of disease and plague.

Medicine is only now coming out of the mist and darkness of the mediæval age and is only now grasping the idea that plagues are preventable. The old notion that they were beyond human control, that they were due to a diabolical agency against which it were folly to struggle with any weapon; or the later vague theory that they were due to a subtle miasmatic influence as uncontrollable as the wind on which it was borne, is giving way to the clearer light of scientific research and now we know that it is man himself, not the devil, not any breath of wind, to which we must look for the cause of pestilence.

When a great epidemic threatens, the cry goes up from the press of the land, medical and lay, for clean streets, clean houses and pure water, but after the danger is over there is only too much probability that the press will be silent and, like faithless sentries, sleep till the footsteps of the hostile army grow so loud that even the deaf sentry must wake. In an army, with the enemy within marching distance, such a guard would be unknown. Why should it be so in medicine, where

the fight is not against a human foe but against a foe that is all the more deadly because unseen and sleepless.

If cholera had reached our city, and the deaths had amounted to anything like the ratio that there has been from diphtheria during the past winter, the town would have been deserted and the people panic stricken. But typhoid fever and diphtheria are diseases which we have gotten used to and take as a matter of course; perhaps, as with the diphtheria, quarantining those suffering with the disease and, ostrich-like, burying our heads in the sand of a quarantine, thinking that we are safe. Of what use is quarantine while the source of the disease, filth, is allowed to remain.

At one time the northwestern part of the city was a hot-bed for typhoid fever, and the hospitals in that section were full to overflowing with cases of the disease. The cause was not far to seek. That portion of the city was supplied with water from the Delaware, while the rest of the city received its water from the Schuylkill. The Delaware is a tidal stream, the sewage of the city empties into it; and, although the inlet for drinking water was above the outlet for sewage, the supply was polluted, and lives were lost in consequence. With the change of supply the typhoid almost wholly ceased.

The great illustrations of the value of preventive medicine come from the cities, for there men are herded together, and the danger of infection is greater. But how often does it happen that typhoid breaks out in the farmer's family—the result of neglect of sanitary laws. The people are hard to convince, and it is only when the matter is brought home by some terrible lesson that they will hear. Too often the patient says, "My grandfather drank from this well, and what was good enough for him is good enough for us," forgetting all the while that the community has increased in numbers, and what was a lonely farmhouse in the midst of broad fields has become the centre of a village.

People love liberty, and liberty of thought and action are the cornerstones of our country and her institutions. Therefore people resent what they term prying into their business, even in the matter of sanitation. They must be taught that it is not only for their neighbors' good, but their own, that they are compelled to abate nuisances. Liberty of action does not include danger to one's fellows.

Medical men must not fold their hands and keep silent. To a large extent they are the educators of the people; to them the people look for guidance in matters of health, and through them must the people be made to understand that certain diseases are preventable, and that if each will see that "his own front yard is clean," he and his neighbor will fare better.

Smallpox has been almost rooted out. Typhus is almost now unknown; and so may it be with other diseases if we but put our shoulder to the wheel as guardians of the nation's health. A great duty devolves on the board of health of the community. Generally, they are men of honesty of purpose; but too often the office is a convenient resting-place for the weary political worker or his crony, and the post is filled by men who know nothing of sanitation, and who care only for the paltry honor and perquisites of the position. Such things ought not to be, and the sooner the position of member of the board of health is taken out of the hand of politics and made honorable, the better it will be for the communities at large. The sooner medical men preach the great gospel of cleanliness in daily life and the importance of prevention, the better will it be for the public health. Cholera has probably been prevented from visiting this country, but there are other diseases against which we must keep up the struggle of prevention. Therefore, watch!

BACTERIOLOGICAL NOTES.

The Bacillus of Diphtheria (Klebs-Loeffler Bacillus.)

Although several species of bacteria, including micrococci and streptococci, have been attributed with more or less evidence as the etiological factors in diphtheria, the Klebs-Loeffler bacillus is now generally accepted as the cause of the disease. This germ was first described by Klebs in 1883. He found it the diphtheritic membrane but did not succeed in isolating it. In 1884 Loeffler obtained it in pure culture and since that time it has been known as the Klebs-Loeffler bacillus and its etiological value has been demonstrated by a large number of investigators.

Morphologically this bacillus varies very considerably. The rods are straight or slightly curved with ends rounded. They have a diameter of from 0.5 to 0.8 micromilleters and in length vary from 1.5 to 3 micromillimeters. One end of the bacillus is frequently club-shaped and irregular, forms which are almost, if not quite, characteristic of this organism. In an unfavorable culture medium the forms are especially varied, one or both ends being thickened or an expansion in the central portion of the bacillus. Occasionally the rods appear to be made up of irregular oval or spherical segments. No spores have been observed and the bacteria do not grow in filaments. It is stained with the ordinary aniline dyes. It takes the Graus stain. In order to demonstrate the bacilli in diphtheritic membranes, Welch and Abbott state that "Nothing can surpass in brilliancy and sharp differentiation, sections stained doubly by the modified Weigoit's fibrin stain and picrocarmine." In coverglass preparations from the membrane the diptheria bacilli can be quite readily distinguished, especially if the Graus stain has been used.

Biologically, the diphtheria bacillus is *aërobic* and *faculative anaërobic.* It develops in various culture media at a temperature varying from 20°-42°C. The most favorable temperature being about 35°C. On nutrient agar the colonies are of a grayish yellow color, their outlines are not sharply defined and a rough almost reticulated surface. The growth is not very rapid. It grows in gelatine but does not liquify it. In bouillon it imparts a uniform cloudiness to the liquid; occasionally, however, the growth is in the form of whitish masses along the sides and in the bottom of the tube. The growth on potato has been questioned but Welch and Abbot found that it did develop on ordinary steamed potatoes. This bacillus develops in milk and, as it grows at a low temperature, it may be easily communicated from one person to another through this medium.

The bacillus of diphtheria retains its vitality in cultures for several months. It has been known to live for nine weeks in dried fragments of the diptheritic membrane. It is destroyed by heat at a temperature of 58°C. after an exposure of ten minutes.

The bacillus of diphtheria is fatal to rabbits, guinea-pigs and cats. Rats and mice are remarkably immune to inoculations of this germ. When rabbits or cats are inoculated in the trachea with cultures, a characteristic diphtheritic inflammation is produced, which is followed with general toxemia and death, from the absorption of soluble toxic products formed at the seat of inoculation. This has been and still is believed to be the cause of death in the human species suffering from this disease. This is evidenced by the large number of bacteriological examinations that have been made with negative results from the blood and organs of animals and people who have perished from this disease. That bacteria are only found at the point of inoculation has been the accepted belief. This fact renders the recent discoveries of Frosch and others, of the diphtheritic bacilli in the various organs of the body, of considerable importance in throwing light upon the possible range of distribution of these bacteria within the body.

The length of time during which the bacilli retain their vitality and their power to develop so abundantly in milk are facts worthy of consideration in the isolation of cases and the preventive treatment of other members of the family. The localization of the bacteria on the mucosa of the mouth and pharynx renders the marvelous results which have been reported by local antiseptic treatment quite possible.

A Contribution to the Pathology of Experimental Diphtheria, with special reference to the appearance of Secondary Foci in the internal organs.

Abbott (*Bulletin of the Johns Hopkins Hospital*, IV. 1893, p. 29,) gives an account of some very interesting alterations produced by the bacilli of diphtheria. In addition to the lesions usually found in experimental animals as indicated by the investigations of Welch and Flexner (ibid II. 1891, p. 105,) Dr. Abbott describes the special lesions in the omentum "which consist in minute yellowish, lens-shaped foci, usually between the peritoneal layers and usually circumscribed in outline." "When visible to the naked eye they are rarely larger than the eye of a small cambric needle, and of about the same shape. They are occasionally larger than this, but more commonly smaller, being frequently so small as to be detected only by microscopic examination of sections of the hardened and embedded omentum. As a rule the omentum containing these bodies is somewhat congested, and often presents a shriveled appearance at its free margin. It is in this free margin that the foci are most commonly to be found. Upon microscopical examination these nodules are seen to be sometimes very sharply circumscribed, while again they are slightly less regular in outline. At times they may be seen lying between the folds of the peritoneum, while again they will be limited to the walls of lymphatic spaces. Upon closer examination they are seen to consist of polynuclear leucocytes and those having the horse-shoe-shaped nucleus closely packed together. The majority of the leucocytes composing the nodules contained bacteria which in their morphological and staining peculiarities were identical with the bacilli of diphtheria." In one instance pure cultures of virulent diphtheria bacilli were obtained from an unusually large nodule. The histological structure of the nodules is simple, consisting of masses of leucocytes, many of which are in the phagocytic condition.

Until comparatively recently, the opinion in regard to the relation of the diphtheria bacilli to the organism in which they are located has been that they remained at the point at which they had been deposited, but recently evidence has been obtained which will cause a modification of the original theory of localization. Frosch (*Zeit f Hygiene*, 1893, p. 49-52.) has reported the discovery in the internal organs of diphtheritic bacilli in 10 out of 15 fatal cases of the disease. The way in which the bacilli gain entrance to the internal organs is not known, but Abbot believes that the evidence now at hand indicates that their invasion is accomplished by means of the phagocytic cells.

Acute Ulcerative Endocarditis Due to the Bacillus of Diphtheria.

Howard (*Bulletin Johns Hopkins Hospital*, iv. 1893, p. 30) records a case of acute endocarditis due to the diphteria bacillus. The affection was in a man aged 44. It began with a chill, high fever, pain in the head, abdomen and limbs. The disease ran a course lasting seventeen days. The endocardium was found to be rough, ulcerated and hemorrhagic. The spleen, liver and kidneys were diseased. Cover-glass preparations, made from a thrombus-mass on the mitral valve and from the spleen and kidneys, all showed the presence of a bacillus with all of the morphological characters of the bacillus of diphtheria. This bacillus was the only organism found. Tubes of glycerine agar were inoculated from the mitral valve, the lungs, the liver, spleen and kidneys, all of which developed pure cultures of this bacillus. This germ has been studied by Prof. Welch and Dr. Abbott, as well as by the author, and the only point in which it was found to differ from the diphteria bacillus was its failure to kill experimental animals. The microscopic examination of the tissue showed the bacilli to penetrate to the depth of only two to three layers of cell in the endocardium. The histological study of the organ demonstrated the fact that the bacillus concerned in the lesions present is to a certain extent a pus-producing organism. There was a decided hyaline degeneration noted in the muscle tissue of the valves of the heart. As the author states, "the striking points in this case are a malignant endocarditis with general infection caused by a bacillus that is morphologically and by culture methods indistinguishable from the bacillus of diphtheria." Here we have not only a wide distribution of the bacilli in the body, but the primary lesion situated in a very unusual place (endocardium). Although this bacillus failed to kill guinea

pigs, others have found the Klebs-Loeffler bacillus unable to destroy these animals. According to Prof. Welch, this is the first time that the bacillus of diphtheria has ever been found to be the cause of ulcerative endocarditis.

TRANSLATIONS.

TOXIC JAUNDICE DUE TO INFECTIOUS DISEASES.†

and that the mechanism of its production is simple enough and readily understood. Its pathogeny, however, is more compli-

Rendu, in treating of this subject (*Le Bull. Med.*, May 28, '93) says that simple catarrhal jaundice has probably some intestinal complication as its point of origin, cated. Very probably, as Chauffard has first shown, it is due to an attenuated and benign affection, but nothing definite can be stated. However, there exist other forms of jaundice, truly infectious in nature, which follow in the course of general diseases and which are very difficult to explain. He reports two cases, one occurring in a woman of 67, who appeared to be suffering with a pneumonia of the apex, and in whom a jaundice supervened without any obstruction of the biliary passages, and the other in a man 32 years of age, who developed a marked jaundice in association with a facial erysipelas with cerebral complications, but without obstruction of the bile-ducts.

Such cases undoubtedly have a certain connection with malignant jaundice. This question of pleiochronic jaundice, as it has been called, is a very complex one, as yet unsolved. Anatomically there exists a very great difference between these patients and those with catarrhal jaundice, namely, that in the former the biliary passages are absolutely permeable. This is a capital point on which are based fundamental clinical differences, viz: the colored robes, at times the bilious diarrhœas, the urine more or less deeply pigmented, but less than in jaundice by obstruction. A second difference consists in the almost complete absence of hemorrhage in the two cases reported, while grave jaundice is accompanied, so to speak, invariably with hemorrhage of the skin and mucous membranes, particularly with melena and epistaxis. We cannot consider as hemorrhagic manifestations the several ecchimotic *taches* which the female patient presented on her wrists, nor the insignificant drops of blood which constituted an attempt at epistaxis in the second patient.

Rendu insists upon the point that at the base these jaundices that are allied to the infectious diseases have close affinities with malignant jaundice. They are not *per se* of the nature of grave jaundice, but they become such by virtue of their concomitant visceral complications, notably the renal complications. This law is verified in the two cases reported. In both the kidneys were functionally bad, the urine scanty and albuminous. In this form of jaundice he claims that the renal lesions are, so to speak, the key to the problem. The biliary poisoning adds to itself a poisoning of urinary origin; the kidneys become unable to eliminate the poisons and become altered, the more in proportion as the impregnation of their epithelium by the bile is older and more profound. The kidney, however, is not alone in the causation of the rapid evolution of the malignant jaundice. The lesions of the liver play a certain important role. This fact cannot be doubted when we find, as in the second patient, the lesions of cirrhosis and interstitial hepatitis. But the alterations are not always evident, and in fact the liver may appear almost healthy, aside from the biliary impregnation. That which is important to bear in mind is that in this variety of jaundice the poisoning of the economy is always of a complex origin, and that the patients do not succumb only to biliary poisoning. It is well known besides, as proven by the experiments of Vulpian, that injections of bile are relatively but slightly poisonous. This will explain the long persistence of certain forms of chronic

† Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

jaundice which only moderately alter the general health.

An interesting point is the frequent association of pneumonia and jaundice. Grisolle, long ago, remarked that pneumonia of the apex very frequently accompanied the grave forms of jaundice, a statement that destroys, by the way, the theory of hepatitis by continuity. Gubler, in 1872, showed that usually in pneumonia the jaundice is not biliary but hemapheic—the theory of blood jaundice. He explained it by the exaggerated destruction of the blood corpuscles, causing the escape into the blood of too much unused hemoglobin, thus giving rise to a coloration of the tissues—a greenish yellow. It is admitted that the microbes of the affected part secrete a poison which is absorbed in a different manner by the tissues and thus determines variable irritative lesions. Whatever may be the form of poison, it is interesting to know how the jaundice is produced under its influence. Three hypotheses may be advanced: either the blood corpuscles are destroyed in the blood and the biliary pigment immediately formed; or, the irritated liver secretes bile abundantly, with a polycholia and biliary infiltration of the tissues; or, finally, the later view, there is an obstruction to the intra-hepatic biliary circulation due to an obstruction of the inter- and intralobular biliary canaliculi. The first hypothesis cannot be sustained, as Stern has demonstrated. The second hypothesis, that of a primary polycholia, due to toxins which penetrate into the liver, appears to Rendu to be an expression of the truth, at least in the greater number of cases. It is, moreover, proved clinically and experimentally.

The treatment of these morbid states, unfortunately, belongs to theory rather than to practice. Theoretically, the toxins should be driven out without debilitating the patient. Here is the difficulty of the problem. Purgatives, and especially drastic purgatives, are contraindicated on account of the great prostration they induce. Sudorifics, as pilocarpin, are not without danger, on account of the bad state of the kidneys. Our resources are very limited. Rendu thinks the better plan consists in utilizing the natural reactions; hot drinks, tea, coffee, which provoke at once diuresis and diaphoresis, while stimulating the nervous system; injections of caffeine, which especially answers for the last indication, are, without doubt, valuable; finally, milk diet and careful regime for the alimentation of the patient. Best of all is to envelope the patient in a wet jack to induce diuresis and perspiration. This may be continued for a full hour without danger.

A REPORT OF FIVE CASES OF CONGENITAL STRICTURE.*

The author (Dr. Werner, of Markgrönigen,) reports, in detail, five cases, which have come to his notice during a practice of 40 years. He has never seen a complete imperforate anus.

The first case, which happened in 1867, a child aged 20 weeks, had suffered from birth; defecation being extremely painful and covering a long period of time, owing to the small opening.

The author made a small incision with a bistoury having a blunt end, and enlarged the incision with scissors, introducing a catheter at once incited the bowel to action; the lower bowel was thereby emptied. Three days later the child, having had no movement during the interim, was again suffering considerably; and it became necessary to resort to injections and the use of the catheter, which again gave relief.

One month later the mother reported that the child was well, excepting that it was necessary to use the injection daily.

In February, 1891, the author states that the former patient married and had two (2) children, and two years after the operation she was able to do without the injection, and that now she is enjoying perfect health.

Case II. Seen in 1879, age 5 months; always seemed to have pain on defecation, which had always been thin. Four days before, being seen, she had begun to discharge small, round balls of fecal matter, causing great pain. A female catheter

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

was easily inserted; after being passed 3½ c. m. seemed to come in contact with a constriction. A further examination with the little finger proved the presence of an unmistakable stricture.

The author performed a successful operation, which he gives in length; the child recovered promptly, was found enjoying good health in 1891.

Case III. Seen first January, 1891, aged 11 months; has been suffering since birth from difficult defecation. Operation same as case second; prompt recovery.

Case IV. Seen first August, 1878, aged 9 weeks, and had had two previous operations; previous diagnosis, complete closure of the rectum, which the author seems to doubt. An operation seemed to be successful, as in others. The communication received 13 years later said, however, that the boy is well developed, mentally sound, but that up to his seventh year had had no control over the sphincter ani; and even now cannot retain any liquid movement. An investigation of the parts shows a patulous opening, size of a cherry stone, large enough to admit an ordinary lead pencil; in passing the finger into this opening, one reaches an obstruction, in all probability a healthy internal sphincter. The child suffers no pain and never passes blood or mucus.

Case V. Seen in January, 1889, the child 2½ months old, which was so sick and emaciated that an operation was out of the question, died several days after being seen.—*Memorabilien*, May, 1893.

A CASE OF FRACTURE OF THE HUMERUS IN A CHILD ONE DAY OLD.*

Gurlt has shown in a statistical table, comprising fourteen hundred cases (prepared by B. Gerber, *Gyoyazat*, No. 14, '93), that the above-mentioned fracture occurred but in five children who had not yet reached their first year. Of these five, there were three cases of fracture of the femur, one of the scapula, and one of the clavicle; none were recorded of the upper extremities.

Dr. Gerber's case is for that reason, a rare as well as an interesting one. On the 10th of December, '92, he was called to see a child, the complaint being made that it could not lift the left arm. A careful examination revealed a normally developed baby whose left arm, at about its upper third, was crooked, crepitation being easily demonstrated, showing the bone to be completely fractured. Reposition of the ends was produced by decided conuler extension. The entire arm is then encircled by a broad bandage, over which a splint made of heavy paper was properly adjusted, allowing the position of the arm to be at right angles, and then bandaged to the body after careful protection with cotton. The bandage was removed every seven days. After the removal of the second bandage there was sufficient callus thrown out, making the union at that early date secure. With the exception of the first few days, when a slight œdema of the fingers and hand was present, and which was removed by a gentle massage, the fracture healed thoroughly in three weeks, with no untoward symptoms.—*Der Kinder Arzt*, May, 1893.

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

CORRESPONDENCE.

Epistaxis.

TO THE EDITOR OF THE MEDICAL AND SURGICAL REPORTER:—Sir: Permit me to testify to the efficacy of the methods of staying epistaxis, recommended by Dr. Phillips in your issue of the 6th of May, p. 709. The method has been long known and practiced in Dublin. We ascribe its introduction to Mr. Josiah Smyly, from whose son, Mr. (now Sir Philip), Smyly, I learned the method as a student of the Meath Hospital of this city.

Yours truly,
GEORGE FOY.

7 Cavendish Row, F. R. C. S., Rutland Square, East, Dublin.
June 9th, 1893.

Treatment of Acute Coryza.

℞
Salol..... .....10.0
Acid salicyl..... 2.0
Tannin 1.0
Acid boric 40.0
M. ft. pulv.
Sig. Use as snuff every hour.

—*Der Kinder. Arzt.*, May, '93.

ABSTRACTS.

HINTS TO PREVENT THE SPREAD OF CONSUMPTION.

Wm. R. Huggard, of Davos Platz, Switzerland, sends the following: All cases of tubercular disease of the lungs ("consumption") take origin directly or indirectly from other cases. This is now an established fact. Infection, however, is easily provided against if certain simple precautions are taken.

The chief modes of infection are:—

1. *By inhaling dried and pulverized expectoration.*

This is apt to occur when an ordinary pocket-handkerchief is used by a tubercular person for expectoration. When such a handkerchief is opened, the dried expectoration is likely to be pulverized and diffused through the air. Thus it may be inhaled by others, as well as by the patient himself, who is likely to suffer from drawing disease-germs into portions of lung previously unaffected.

Another source of pulverized expectoration is the habit of spitting on the ground. The expectoration becomes mixed with dust, and then is easily carried into the air. This habit, therefore, is not merely offensive, but dangerous.

2. *By using spoons, cups and other articles of the kind which have not been properly washed after having been used by tubercular persons.*

3. *By kissing.*

This source of infection is especially to be guarded against in the case of children.

Self-infection may occur, in addition to the ways mentioned, *by swallowing the expectoration.* This habit is likely to lead sooner or later to infection of the intestines with tubercular disease.

Knowing the channels of infection, we can easily take effective precautions.

The sputum must be destroyed, and must not be allowed to become dry.

A spitting-cup or flask containing just enough disinfectant solution to cover the bottom of the vessel should always be used for the expectoration. Out-of-doors a pocket spitting-flask, such as Dettweiler's, should be employed.

Pieces of linen or calico about ten inches square may also be carried. These should be used only in case of absolute necessity, and should be burnt as soon as possible afterward. No piece should be used more than once.

Bedrooms that have been occupied by tubercular patients *should be thoroughly disinfected* before they are occupied by other persons, and a declaration or assurance on the point should always be demanded.

If the previous occupant of the room never allowed the furniture, hangings, or carpets of the room to be contaminated with the sputum, there would be little need for this precaution. But as people, ordinarily of cleanly personal habits, sometimes show a surprising amount of ignorance or carelessness in this respect, the following points should be insisted on:—

1. Carpets, curtains, and bed-coverings should have been exposed to superheated steam under high pressure.

2. The floor and walls of the room should have been properly disinfected. (Rubbing with new bread followed by the application of corrosive sublimate solution is probably the most effective practical method.)

There is *no danger of infection from the breath of a tubercular patient.* The sole danger of social intercourse arises from neglect of the precautions described.

Fresh air is of the highest importance for tubercular persons. Hot and stuffy rooms have an evil influence over the disease. Except in special circumstances, the bedroom window should be kept open by night as well as by day.—*Univ. Med. Journal.*

A MAGNIFICENT MICROSCOPE, costing eight thousand seven hundred and fifty dollars, has been manufactured at Munich for the Chicago exhibition. It possesses a magnifying power of fourteen thousand diameters, and can be increased to sixteen thousand with oil immerson. Electricity furnishes and regulates the source of light, which, placed in the focus of a parabolic aluminium reflector, reaches an intensity of eleven thousand candle power.

CURRENT LITERATURE REVIEWED.

THE ANNAL OF GYNECOLOGY AND PÆDIATRY FOR JUNE.

Dr. Charles P. Noble contributes two papers; the first.

Certain Cases of Neglected Pus-tubes.

He reports three cases of pyosalpinx which were allowed to run their course. The first case died, after years of pain and invalidism, with a huge collection of pus in the abdomen. The second patient had arrived near the period of the menopause without conceiving. The cervix was dilated with the idea of curing the dysmenorrhœa with which she suffered. The result of the operation was a violent attack of peritonitis and pus formation. The abscess finally burst into the bowel and continues to discharge at intervals. Dr. Noble advised the removal of the pus sac. In the remaining cases, the trouble followed the introduction of sponge tents into the uterus for the cure of a catarrh. The patient had an attack of so-called typhoid fever following the treatment, and the abscess finally emptied itself through the vagina. The report is presented to refute the teaching of those who deny the very serious and even fatal character of pyosalpinx when not subjected to early removal by cœliotomy.

The second paper by Dr. Noble is entitled

Certain Aspects of Puerperal Septicæmia, with the report of a case of Acute Puerperal Cellulitis.

The author protests against the false position, taken by some, of denying the occurrence of inflammation of the pevic cellular tissue, although he has not met with pelvic cellulitis except in the puerperal state, and as an acute inflammation ending in resolution or abscess. Its occurence is rare, however, as compared with intra-peritoneal inflammation, due to salpingitis or to ovaritis. In the treatment of puerperal sepsis after it has extended to the tubes or to the broad ligaments, the use of the curette or intra-uterine douche is not advisable. We must trust to nature, assisted by our remedies, to bring about resolution, or in case of pus formations must resort to operation. Much depends on whether the secondary inflammation is in the tubes and peritoneum, or in the broad ligament. If in the broad the ligament the pus can be evacuated through the vagina or over the groin. If in the tubes and peritoneum, an early section is imperative.

Dr. Edward P. Davis contributes a paper on

The Treatment of Large Ovarian Cysts, with the report of a case; Extirpation of the Coccyx for Congenital Cyst.

In the case of ovarian cyst reported, the patient died of sudden syncope six hours after operation. The total weight of the solid and liquid portions of the tumor reached the great total of 160 pounds. The author raises the question whether it is possible to remove so large a mass from the abdominal cavity without producing such a change in circulation as to cause fatal syncope. Two methods of operating can be practiced; the first is to stitch the cyst to the abdominal walls and use drainage, allowing the cyst to empty itself gradually; the second method is the removal of the entire cyst as practiced.

The second case reported, is an example of abscess over the coccyx without appreciable cause, and accompanied by pain at the sacro coccygeal joint, completely relieved, first by evacuation of the abscess and then by extirpation of the coccyx.

Dr. R. R. Kime discusses

Ectopic Pregnancy—Pathology, Symptoms and Treatment.

In regard to the treatment, he says: In primary or secondary intra-peritoneal rupture of the ectopic sac, operate by cœliotomy at once. Before primary rupture, extirpate cyst tube and ovary. Fœticide for this condition by means of electricity and morphia injections, are but temporary expedients, suitable for cases of doubtful diagnosis, or when a competent operator cannot be had. With extra-peritoneal primary rupture into the broad ligament in the early weeks of gestation, producing hematocele, if absorption fail, then perform cœliotomy or vaginal draining. If the child survives primary rupture into the broad ligament, let the fœtus live, keeping the patient under strict observance, ready to operate at any time when the life of the patient demands it or when the fœtus has reached a viable age. Surgical interference should be the rule in all cases of ectopic pregnancy reaching full term, even after spurious labor and the death of the fœtus. After the operation, never give opiates; have the bowels well moved early by salines and enemata; no food, only sips of warm water until the bowels are moved and vomiting ceases. Early catharsis relieves pain, nausea and prevents intestinal obstructions. He has never regretted giving cathartics early after operation, but has seen the evil effects of delay.

Dr. W. Reynolds Wilson contributes a paper on "Uterine Thrombosis Following Post-partum Hemorhage and Its Relation to Puerperal Infection."

In this issue also appears a reprint of Dr. Oliver Wendell Holmes' classic essay on "The Contagiousness of Puerperal Fever," this year being the semi-centennial of its publication.

THE CHICAGO MEDICAL RECORD FOR JUNE

contains a paper by Dr. F. C. Hotz on

The Importance of Early Mastoid Operations in Acute Suppurative Otitis.

If the mastoid inflammation is not relieved after a week's trial of antiphlogistic measures (such as blood letting or leeches behind the ear, the douching of the tympanic cavity with warm borie acid solutions, etc.), the author thinks that it may be taken for granted that by this time the mastoid antrum is filled

with pus, and that this pus must be removed if the patient is to get well speedily. Many surgeons perform the mastoid operation on the installment plan, so to speak. Where leeches, warm fomentations and other treatments have failed to give relief, they make a Wilde's incision, and wait a day or two for results; and when they are satisfied that this incision also failed to stay the inflammation, then they proceed to open the cells.

In operating the author prefers the chisel to the drill.

Dr. Charles Warrington Earle contributes a paper on

The Present Status of the Etiology of Whooping Cough and its Treatment with Bromoform

The author is satisfied of the bacterial origin of the disease, and states that with bromoform the paroxysms are diminished very greatly within three days after the commencement of treatment. It should be given in doses of from one-half drop to a child one year of age to two or three drops to children of five or six, suspended to some mucilaginous vehicle. Syrup or water should not be added to the prescription, but glycerine may be used in any quantity without precipitation. Its action is somewhat similar to that of belladonna. The author believes it controls very largely the nervous element in this disease. It has not any germicide properties. It is useful in the second stage, diminishing the number of paroxysms and in this way bringing the disease under control, which, to say the least, excites our solicitation and makes us fearful of complications where the paroxysms are from twenty to thirty each day. Previous to the time that his attention was called to bromoform, the author had relied almost entirely upon fumigations, using tincture of iodine and carbolic acid. With the bromoform to combat the neurotic tendency and the fumigations of carbolic acid and tincture of iodine to destroy the micro-organisms, we have a treatment which promises more than any other combination of remedies. It is quite probable that the action of bromoform and belladona may be somewhat similar, but as between the two remedies the bromoform has given the better results.

Dr. C. S. C. Plummer contributes a paper on

Punctured Wounds of the Feet,

being a report of two hundred and three cases treated at the Medical Bureau, World's Columbian Exposition, during the "Construction Period," June 1st, 1891, to May 1st, 1893.

Although treatment varied much in different cases, the routine treatment finally agreed upon as being applicable to most cases and followed by the best results, was as follows:

1. Thorough cleansing of the foot with solution of bichloride of mercury 1-1,000.
2. Trimming the edges of the wound.
3. Swabbing out the wound with a probe lightly covered with cotton and dipped in 95 per cent. solution of carbolic acid.
4. Drainage.
5. Antiseptic dressing.
6. Rest.

Other papers in this month's issue are: "The Treatment of Typhoid Intestinal Hemorrhages" by Dr. A. A. Knapp, in which the author advocates the administration of a hyperdermic injection of a quarter grain of sulphate of morphia, followed by powdered opium in one grain doses every hour while awake, unless the respirations fall below twelve per minute. The paper includes a report of cases in which the treatment was used. Dr. A. E. Hoadley presents a paper on "The Importance of Early Mechanical Treatment of Hip Joint Disease." The issue concludes with a letter from Dr. Keeley in which he denies the truth of the statements of Dr. Chauncey F. Chapman in his paper on "The Bichloride of Gold Treatment of Dipsomania" (a notice of which was published in THE MEDICAL AND SURGICAL REPORTER for March 25th, 1893), and the reply of Dr. Chapman, in which he affirms that his statements are, in the main, true.

PERISCOPE.

THERAPEUTICS.

Heat and Chloroform.

Decomposition of chloroform by the presence of light and heat from an open fire, not infreqently occurs and is disagreeable to operator, assistants, attendants and patient. Little has been known about the matter until the *Medical Press and Circular* in a recent issue called attention to the danger. In December last, in this city, during an operation for hemorrhoids, chloroform being the anæsthetic employed, the operator, anæsthetizer and attendant began to cough violently; this was accompanied with irritation and watering of the eyes and dry and irritated throat, and a strong and pungent odor of free chlorine was noticed. The cough and discomfort in eyes and throat continued for a considerable time after leaving the operating room. It was supposed that the chloform was impure, and the bottle with what remained of its contents was sent to the manufacturer, Dr. Squibb, of Brooklyn, who reported, after analysis, that it was entirely pure. It was then remembered, that, as it was a cold day, an oil heating stove had been burning during the operation. This fact Dr. Squibb considered as the cause of the decomposition of the chloroform with evolution of free chlorine. The patient in this case suffered no discomfort whatever.—*Medical Review.*

Creolin a Mixture of Crude Carbolic Acid and Resin Soap.

From a trade circular issued by Dr. F. Raschig, a competent chemist and manufacturer, we learn that,

"Creolin is nothing more than a mixture of about 2 parts crude 20 per cent. carbolic acid and 1 part resin soap, and consequently contains about 10 to 15 per cent. of crude carbolic acid—to which solely it owes its disinfectant power."

This positive and trustworthy statement is made to counter the specious claim by the creolin manufacturers that their product is "made from coal-tar creasote free from all carbolic acid." Dr. Raschig lends emphasis to the exposure by pointing out that "coal-tar creasote and 20 per cent. crude carbolic acid are identical"—thus "hoisting by their own petards" his opponents in the argument.

Creolin has done good service, but is now excelled by lysol.—*Notes on New Remedies.*

Prentiss (D. Webster) on the Effect of Pilocarpine in Changing the Color of the Hair.

Having used pilocarpine with great success in a case of uræmia, Dr. Prentiss was much interested to note its effect on the patient's hair. The drug was administered by the hypodermic method in doses of one centigramme, and the total amount injected (in two or three days) was forty centigrammes. The hair, which previous to this time had been light brown, began rapidly to change its color to dark brown, and later became black. It also became coarser and thicker. These changes occurred not only in the hair of the head, but also in that of other parts of the body. The author states that two cases of a similar effect—though less marked—have been recorded, and speaks of the occasionally marked effect of pilocarpine in promoting the growth of hair.—*Med. Rec.*, April 15, 1893.

MEDICINE.

The Treatment of Malaria by Means of Potassiun or Sodium Nitrate.

Dr. Peter Buro in "Deutshe Med. Zeitung," having experimented with the above salts in the treatment of malaria, reports the following:

1. The nitrate of potassium and the nitrate of sodium are specific remedies in typical malarial intermittent, whether it assumes the quotidian, tertian or quartan form.
2. Both salts manifest an exact action but the sodium salt has the advantage of being free from the slightly toxic effect of potassium.
3. The usual single dose for adults is from 15 to 24 grains, which may be given in either the febrile or afebrile stage.
4. A decided advantage of these salts is that they exert no ill effect upon the digestive organs or nervous system, nor do they produce any untoward results.

Tincture of Iron for Burns.

Dr. E. F. Starr, in the *Atlanta M. and S. Journal*, recommends the application of the tincture of chloride of iron, by means of a feather or soft brush, as a prompt and efficient remedy for recent burns. The application should be made as early as possible, and should be done thoroughly, moistening it everywhere. Where the cuticle is not destroyed or removed, it should be used full strength; if the cuticle is gone, dilute with water one-half or two-thirds.

If used early in scalds and superficial burns it not only allays the pain but prevents blistering.

The Iodine Treatment of Goitre.

Dr. E. Nazaries, Bulletin de la Societe de pharmacie de Bordeaux, Feb., 1893; *American Journal of Pharmacy*, May 1893), remarks that, while iodine has long been used in the treatment of goitre, he has met with unqualified success by a particular method of its use. He dissolves from 75 to 90 grains potassium iodine, and from 20 to 30 drops of tincture of iodine in about 5 ounces of distilled water. A spoonful (whether teaspoonful or tablespoonful, not stated) of this solution is diluted with a pint of water, and this amount taken daily, during and after meals. The author insists on the continued internal use of the drug.—*N. Y. Med. Jour.*

Diagnosis of Apoplexy.

Mills (*Polyclinic*) based the diagnosis of apoplexy on the following points:

1. The sudden fall with unconsciousness at once, no injury perceptible, face white.
2. Respirations stertorous, noisy, puffing cheeks, tendency to Cheyne-Stokes, interrupted, improved by turning on side.
3. Right face droops more, and right cheek flaps more than the left. Right pupil widely dilated; left contracted. Retinal veins distended. No rotation of head and eyes to one side.
4. Pulse full and slow; temperature subnormal.
5. Convulsive movements noted at first have ceased; both arms and legs drop lifeless equally. Left side was paralized first. Sensation almost completely abolished.

SURGERY.

The Surgical Treatment of Cholera.

Five cases have up to the present time been published in which cholera was treated surgically. M. Lambotte operated upon two patients last autumn. The abdomen was opened in the middle line, and the bowel sown to the wound, incised and flushed out with a solution of corrosive sublinate (1 in 3000) by means of an india rubber tube one metre long. Both patients died. A Russian physician, M. Meerovitch, of Ekaterinodar, operated upon three patients last August

Only a small puncture was made into the bowel, which was not stitched to the wound. From 2000 to 3000 grammes of a solution of tannic acid were injected in two of the cases and 4000 grammes of a solution of thymol in the third. In all three cases there was a fleeting improvement in the symptoms, but all the patients died.—*Bost. M. & S. Jour.*

Tropical Suppurative Hepatitis.

Surgeon Patrick Hehir, of the British Indian Service, formulates, in the *Indian Medical Gazette*, the following pathalogical classification of cases of hepatic abscess:

(1) By far the most common are cases occurring consecutive to dysentary, and arising from a secondary infective process affecting the liver through the portal circulation. These cases arise from:

(*a*) The action of septic organisms, such as the streptococci, staphylococci, micrococci; or

(*b*) The irritation of the products of such septic organisms—ptomaines, conveyed to the liver from the ulcerated bowels and acting primarily on the liver, which plays the part of a filter upon the blood conveyed to it by the portal vein, or to the irritation of the amœba coli or cercomonas intestinalis, or both combined. Cases due to malarial poisoning, the blocking up of the radicles of the portal vein by the plasmodia of Laveran, these organisms acting as irritants and lighting up the suppurative process.

(2) Acute sthenic parenchymatous inflammation resulting from climatic causes, overcrowding, alcoholic excesses, excessive heat or chill, acting upon a liver already in a partial state of disorganization.

(3) Idiopathic cases in which no assignable cause can be traced.

Intestinal Anastomosis.

Murphy describes an "anastomosis buttom."

It consists of two small circular bowls made of bone. In one bowl is fitted a small cylinder with a female screw-thread on its entire inner surface. In the other bowl is fitted a smaller cylinder, of a size to slip easily into the female cylinder. On the inner surface of the lower end of the male cylinder two small brass springs are fixed, which serve to hold the bowls together when the male cylinder is pressed into the female cylinder. In the side of each bowl are four openings which serve for drainage. The whole button has the form of two hemispherical bodies held together by invaginating cylinders. These hemispheres of the button are inserted in slits or ends of the viscera to be operated upon. A running thread is placed around the slits in the viscus, so that when it is tied it will draw the cut edges within the clasp of the bowl. A similar running thread is applied to the slit in the viscus into which the other half of the button is inserted, and the bowls are then pressed together. The pressure-atrophy at the edge of the bowl is produced by a brass ring supported by the spring. The opening left after the button has liberated itself is the size of the button. For this device the inventor claims the following advantages: (1) It retains its position automatically; (2) it is independent of sutures; (3) it produces a pressure-atrophy and adhesion of surfaces at the line of atrophy; (4) it ensures a perfect apposition of surfaces without the danger of the displacement; (5) it is applicable to the lateral as well as to the end-to-end approximation; (6) it produces a linear cicatrix, and thus ensures a minimum of contraction; and (7) it it extremely simple in its technique.

Three cases of cholecysto-enterstomy with this device are reported with apparent good results, In one case the time occupied by the operation was eleven minutes. Other experimental operations on animals are reported as having been done successfully. These include cholecystic-enterostomy, gastro-intestinal anastomosis and entero-intestinal anastomosis.—*Bost. Med. and Surg. Jour.*

Bloodless Amputation at the Hip joint.

Dr. Senn has described a new method, devised by him, for the bloodless amputation of the hip-joint (*Chicago Clinical Review*). The following conclusions are presented by the author, as embodying the advantages of this operation: 1. Preliminary dislocation of the head of the femur and clearing the shaft of this bone of all soft tissues down to the proposed line of amputation through an external straight incision requires less time, is attended by less hemorrhage and shock than when this part of the operation is done after circular amputation, as advised by von Esmarch and others. 2. The external straight incision is the same as the von Langenbeck incision for resection of the hip-joint, differing only in length. 3. After dislocation of the femur the soft tissues are tunnelled with a hæmostatic forceps which is entered through the external wound on a level with the trochanter minor to a point on the inner aspect of the thigh behind the adductor muscles and about two inches below the ramus of the ischium, where a counter-opening two inches in length is made. 4. Bloodless condition of the limb should be secured by elastic compression or vertical position prior to tying the elastic constrictors. 5. An elastic tube three-quarters of an inch in diameter and about four feet in length is grasped with the force in the center and drawn through the tunnel made by the forceps. 6. After dividing the elastic tube in the centre the base of the thigh is constricted by drawing firmly and tying the anterior constrictor in front of the anterior section, while the posterior constrictor after being drawn tight behind the posterior section the two ends are crossed and then made to encircle the whole thigh, when the ends are again drawn firm and tied or otherwise secured above the anterior constrictor. 7. A long and short oval cutaneous flap should invariably be made in all amputations at the hip-joint. 8. In perference a long anterior and a short posterior flap should be selected. 9. The transverse section through the muscles should be some what conical in shape,

the apex of the cone corresponding to the tunnel made by enucleation of the upper portion of the shaft of the femur. 10. Resection of the end of the sciatic nerve and ligation of all vessels that can be found should be done before the removal of the constrictors.

The femoral arteries should be secured by a double catgut ligature spread half an inch apart, the one portion on the proximal side including also the accompanying vein.

The posterior constrictor should be removed first, and all hemorrhage arrested by ligation and compression before the anterior constrictor is removed. 13. The upper part of the wound corresponding to the acetabulum should be drained with an iodoform gauze tampon, and the remaining part of the wound by one or more tubular drains.—*Med. Record.*

OBSTETRICS.

Conception on the Fourth Day of Childbed.

Kronig (*Centralbl. f. Gynak.*, No. 19, 1893), related an extraordinary and instructive case at a meeting of the Leipzig Obstetrical Society. A woman, now twenty-two, healthy and regular before her pregnancies, bore her first child on July 4, 1892. It was weaned on the tenth day, and is still living. On July 8, the fourth day of the puerperium, the patient had connection and then abstained for three months from coitus. The period did not return. In November, 1892, the motion of the child was felt. It was born on March 10. It seemed as though it had reached term, yet it had come into the world 243 days after the only connection which had occurred since the first confinement, or twenty-seven days—practically a calendar month—before the normal average of 270. It was over twenty inches long and weighed nearly seven pounds twelve ounces.

The shortness of the pregnancy was very remarkable, but the conception on the fourth day of the puerperium was still more notable. Ovulation, according to current theories, is entirely suspended during pregnancy, and does not recommence until, or a little before the first period, which occurs between the sixth and eighth week after delivery in women who do not suckle. If ovulation was delayed so long in this case, the spermatozoa must live long; Bozzi certainly found them living seventeen days after coitus, in the posterior vaginal fornix: but in Kronig's case this delay of conception to the first period would have made the pregnancy much too short to allow of the birth of a well-formed child.

In short, ovulation went on quite independently of menstruation. How the impregnated follicle could find a fit place of attachment on the inner surface of the uterus is a more mysterious question. Yet the glandular structures developed during pregnancies are often completely shed by the third or fourth day after childbirth, so that there is soon enough normal endometrium to lodge a fresh ovum. It is evident that spermatozoa can live in the lochia.—*British Med. Journal.*

A Valuable World's Fair Book.

The Passenger Department of the Baltimore and Ohio Railroad Company has prepared for general distribution a handsome pamphlet descriptive of the scenic and other attractive features of that road from New York to Chicago. This book should prove invaluable to those visiting the World's Fair. In its artistic cover, illustrations and reading matter, it is fully up to the high standard which has been fixed by the B. & O. for publications of this character. The scenery en route, which has gained for the B. & O. the richly deserved sobriquet of "Picturesque," the public buildings at Washington, old Harper's Ferry, Luray Cavern, and other attractive points are faithfully portrayed. The value of the publication is increased by descriptions and illustrations of the principal buildings at the World's Fair. This book can be procured free of charge upon personal application to ticket agents, B. & O. R. R. Co., or you can have it mailed to you by sending name and address with five cents in stamps to Chas. O. Scull, General Passenger Agent, Baltimore, Md. World's Fair tourists should bear in mind that the B. & O. is selling tickets at very low rates good going via Washington and returning via Niagara Falls.

Deer Park and Oakland.

To those contemplating a trip to the mountains in search of health and pleasure, Deer Park, on the crest of the Allegheny Mountains, 3,000 feet above the sea level, offers such varied attractions as a delightful atmosphere during both day and night, pure water, smooth, winding roads through the mountains and valleys, and the most picturesque scenery in the Allegheny range. The hotel is equipped with adjuncts conducive to the entertainment, pleasure and comfort of its guests.

The surrounding grounds, as well as the hotel, are lighted with electricity. Six miles distant on the same mountain summit is Oakland, the twin resort of Deer Park, and equally as well equipped for the entertainment and accommodation of its guests. Both hotels are upon the main line of the Baltimore and Ohio Railroad, have the advantages of its splendid Vestibuled Limited Express trains between the East and West and are most desirable resting places for World's Fair tourists. Season Excursion tickets, good for return passage until October 31st, will be placed on sale at greatly reduction rates at all principal tickets officers thoroughout the country. One way tickets reading from St. Louis Louisville, Cincinnati, Columbus, Chicago, and any point on B. & O. system to Washington Baltimore, Philadelphia, or New York, or vice versa, are good to stop off at either Deer Park or Oakland, and the time limit will be extended by agents at either resort upon application.

The season at these popular resorts commences June 15th.

For full information as to hotel rates, rooms, etc., address George D. DeShields, Manager, Deer Park, or Oakland, Garrett County, Maryland.